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Value-added Wood Product Manufacturing in New Brunswick: Where Will We Get the Wood?

A study of raw material supply to the value-added wood manufacturing sector in New Brunswick and identification of potential ways to maintain and enhance that supply

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New Nouveau Brunswick

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In Memoriam

This report is dedicated to Ken Runyon, PhD, a long-time friend and valued professional colleague of many people in the New Brunswick forest industry, who passed away in October 2000. Ken's company, KLR Resource Economics Consulting Ltd., was to have been part of this study's consulting team. Regrettably, declining health made his participation impossible. Ken was a former member and strong supporter of the Wood Products Group.

Acknowledgments

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Finally, the members of the Steering Committee named below provided valuable advice and guidance throughout the project:

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Executive Summary

In early 2000, the New Brunswick government began a comprehensive review of policies and programs relating to the forest industry. The value-added wood manufacturing sector wishes to have, for the first time, a voice in these review proceedings and input to the policies that result. This study was commissioned to provide the research and analysis needed to credibly offer such input. Specific objectives of the research were:

- to quantify the characteristics of the raw material requirements of the value-added wood product sector by volume, species, grade, dimension and other relevant variables;
- to identify obstacles that prevent wood fibre from being put to its optimum end use;
- to identify potential incentives, partnerships, policy developments and any other mechanisms that could assist in directing raw material to its optimum end use, creating stability and supporting long-term growth for the value-added sector.

New Brunswick accounts for 6.6 per cent of total forest volume harvested in Canada, but produces only 4 per cent of the country's value-added wood products. This study begins from the premise that growth in value-added wood product manufacturing is both worthwhile and achievable. While this document has been compiled and written for the Wood Products Group, many of its recommendations have been made with government policy makers in mind.

The first component of the research (see Section Three) was a review of documentary sources, supplemented when necessary by interviews with personnel from government agencies and other organizations. The main conclusions of this part of the research were that substantial volumes of wood are imported from and exported to neighbouring jurisdictions as part of normal commercial activity, and that New Brunswick wood manufacturers at all levels have become increasingly dependent on imported raw material to support their operations.

A second research element consisted of a review (Section Four) of experience and policy in other jurisdictions. This uncovered policy initiatives of varying relevance, the most useful of which were the British Columbia government's efforts to support growth of that province's value-added wood sector. Some of these could merit trial in New Brunswick. The concept of industrial clustering emerged in several of the jurisdictions studied: while it appears that success in this area depends more on critical business mass than on government initiatives, it is still worth studying as a factor in policy development.

Interviews with value-added manufacturers, marketing boards and Crown licensees constituted the main body of research (sections Five, Six and Seven). This illustrated that the value-added sector is composed of two distinct kinds of companies, and that the distinction is

reflected in almost every aspect of companies' products, markets, raw material needs, management outlook and corporate culture. In one category are companies that began life as primary sawmills and later diversified into value-added production; in the second are those companies that have only ever been value-added manufacturers and do not possess primary breakdown capabilities. While there are obvious exceptions, companies that fall in the latter category tend to produce the higher-value appearance products and generate more return per unit of wood processed. They also tend to be smaller, newer, less well capitalized, and less able to secure adequate raw material supplies.

Numerous conclusions and recommendations are contained in Section Eight of the report; some of the more important of which are summarized below.

- The flow of New Brunswick-produced wood to neighbouring jurisdictions has an impact on this province's value-added manufacturers, and particularly on the smaller companies that tend to produce higher-value appearance products. There may be some scope for policy measures that would provide incentive for more in-province value-added processing of wood. However, no consideration should be given to any measure that would impede the free flow of wood among jurisdictions, or invite retaliatory action by any neighbouring province or state.

- Given the serious problem of wood theft, and the ever-present possibility of phytosanitary trade sanctions in export markets, it is increasingly important that the provenance of wood products be documented. Appropriate provincial and federal authorities should work toward developing systems of reporting and monitoring wood flow, both within Canada and at the international border.

- The use of 'fibre facilitators' in British Columbia has helped value-added manufacturers in that province gain access to supplies of raw material. These facilitators (funded by a provincial Crown agency but employed by a private association) work as intermediaries between value-added companies and primary sawmills, building supplier relationships on a company-by-company basis. The Province of New Brunswick should consider developing a similar program, if only on a pilot basis.

- In cases of smaller value-added manufacturers, it is sometimes evident that perceived raw material problems are in fact working capital problems. The Province of New Brunswick should consider developing a program that would make targeted working capital assistance available to small companies, particularly those using hardwood, enabling them to better compete against larger buyers (including out-of-province brokers) who do have the resources to deal with raw material suppliers on a cash basis.

- Providing Crown allocations directly to value-added manufacturers was a strong and recurring theme heard during interviews. Many smaller value-added manufacturers have had little success in trying to purchase raw material from Crown licensees and larger sub-licensees, and feel unable to deal with these potential suppliers. The licensees and larger sub-licensees operate in their own very competitive environment, have to maintain focus on their own profitability, and can pay only limited attention to smaller value-added manufacturers and their requests for low volumes of highly specialized raw material.

- The concept of a 'virtual license' warrants debate. In effect, this would be an allocation of Crown wood to the value-added industry as a whole, giving the sector a status equal to that of a Crown licensee. Instead of a defined geographic area, the virtual license would cover specific types of fibre over the entire province. The allocation would be held and administered in trust for value-added manufacturers by a government agency or industry group.

- At present, provincial and federal policies encourage forward integration of primary sawmills into value-added manufacturing but strongly discourage 'backward' integration by existing value-added manufacturers wishing to set up sawmills for their own use. Changes in these policies are recommended, particularly as they concern hardwood. The ability to convert roundwood to sawn lumber for their own use would expand the range of raw material options available to smaller value-added manufacturers, and make co-operative supply agreements possible between value-added manufacturers and private woodlot owners.

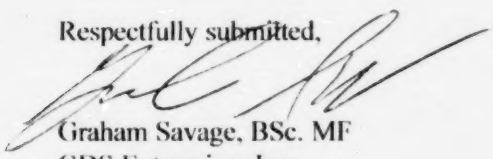
- Crown land is currently managed for optimal SPF and hardwood production. As a result other species such as cedar and white pine, which support considerable value-added manufacturing activity, are in decline. The province should consider ways to sustain and enhance future supplies of cedar and white pine.

- A number of value-added manufacturers perceive a growing need for local sources of environmentally certified raw material. It is recommended that the province consider ways in which a portion of Crown land could be audited and certified by an independent third-party agency, and in which raw material from that land can be made available to value-added manufacturers possessing appropriate chain-of-custody credentials.

- There are at least three areas where innovation in product design and marketing could yield significant benefits for value-added manufacturers seeking new sources of raw material: (a) use of underutilized species, (b) use of low-grade, short and small-diameter hardwood, and (c) substitution of panel products for solid wood. Research and development in these areas is critical, and should be fast-tracked for support under the forthcoming Atlantic Innovation Fund and any relevant provincial program.

The research points, on the whole, to a need for closer ties and more communication among the diverse elements of the province's forest industry. The raw material supply problems that exist, while certainly serious for the companies affected, are seldom the result of quantitative shortages of wood fibre. They arise instead from mismatches in size, expectation, corporate culture and financial capacity between the larger companies that control the preponderance of available wood and the small value-added companies that need it. Minor changes could make a large difference, and redirection of even relatively small volumes of raw material, by policy initiatives or other means, could yield disproportionately large incremental gains for the small companies that make up much of the value-added sector.

Respectfully submitted,



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Sommaire

Au début de l'an 2000, le gouvernement du Nouveau-Brunswick débuta une étude globale des politiques et programmes touchant l'industrie forestière. Le secteur de la fabrication des produits du bois à valeur ajoutée désire, pour la toute première fois, jouer un rôle d'intervenant lors des procédures de révision, et ainsi participer à l'élaboration des politiques qui en résulteront. Cette étude fut commandée afin d'assurer la recherche et les analyses nécessaires à la crédibilité de nos commentaires. Les objectifs spécifiques de la recherche étaient :

- de chiffrer les caractéristiques des besoins en matières premières du secteur des produits du bois à valeur ajoutée selon le volume, les essences, la catégorie, la dimension, ainsi que selon quelques autres variables appropriées;

- d'identifier les obstacles qui empêchent les fibres ligneuses d'être utilisées à leur maximum;

- d'identifier la possibilité d'incitants, de partenariats, d'élaboration de politiques et de tout autre mécanisme qui pourraient contribuer à l'utilisation maximale des matières premières tout en créant une stabilité et croissance à long-terme du secteur à valeur ajoutée.

Le Nouveau-Brunswick représente 6,6 % du volume total de l'exploitation forestière au Canada, mais il produit cependant seulement 4 % des produits du bois à valeur ajoutée au pays. Cette étude débute avec le principe que la croissance de l'industrie de fabrication des produits du bois à valeur ajoutée est tout à la fois appréciable et réalisable. Ce document a été préparé et écrit pour le *Wood Products Group*, mais toutefois plusieurs des recommandations qui y sont rattachées ont été prises en considération des responsables de l'élaboration des politiques du gouvernement.

La première composante de la recherche (voir Section 3) consistait en une révision des sources documentaires à laquelle on a ajouté, lorsque nécessaire, des entrevues avec des employés d'agences gouvernementales ainsi que d'autres organismes. Les conclusions principales de cette partie de la recherche révèlent que l'importation d'un volume imposant de bois aux jurisdictions avoisinantes et que l'exportation de bois de ces mêmes jurisdictions font partie des activités commerciales normales, et que les fabricants de bois du Nouveau-Brunswick à tous les échelons sont devenus de plus en plus dépendants de l'importation de matières premières pour soutenir leurs opérations.

Une deuxième composante de la recherche (voir Section 4) consistait en un examen des connaissances générales et politiques dans certaines autres jurisdictions. Cette recherche a découvert des initiatives stratégiques de pertinence variable dont l'initiative du gouvernement de la Colombie-Britannique à soutenir la croissance du secteur des produits du bois à valeur

ajoutée nous a semblé la plus importante. Quelques-unes de ces initiatives sont certes dignes d'essais au Nouveau-Brunswick. Le concept des grappes industrielles s'est présenté dans plusieurs jurisdictions à l'étude : tandis qu'il semble que le succès dans ce domaine est plus dépendant de la masse critique d'entreprises qu'aux initiatives du gouvernement, son étude, en tant que facteur dans l'élaboration des politiques, demeure importante.

La partie la plus importante de la recherche (Sections 5, 6 et 7) se composait d'entrevues avec des fabricants de produits à valeur ajoutée, des offices de commercialisation et des détenteurs de permis de coupe sur les terres de la Couronne. Ces entrevues nous ont démontrées que le secteur des produits à valeur ajoutée se compose de deux genres d'entreprises distinctes, et que la distinction se manifeste dans presque chaque facette de leurs produits, marchés, besoins en matières premières, perspectives de la gestion ainsi que dans leur culture organisationnelle. Dans une catégorie on retrouve les entreprises qui ont débuté comme usines de transformation primaire et se sont par la suite embarqué dans la production de produits à valeur ajoutée; on retrouve dans la deuxième catégorie, les entreprises qui ont toujours oeuvré dans la production de produits à valeur ajoutée et qui ne possèdent pas les capacités pour la transformation primaire. Bien qu'il existe des exceptions visibles, les entreprises qui se retrouvent dans la deuxième catégorie ont enclin à produire des produits d'aspect esthétique supérieur et à produire un meilleur rendu par unité de bois transformé. Elles sont souvent également plus petites, plus récentes, moins bien immobilisées, et ne possèdent pas d'aussi bonnes capacités à se procurer les approvisionnements en matières premières adéquates.

La section 8 du rapport nous signale plusieurs conclusions et recommandations; quelques-unes des plus importantes sont résumées ci-dessous.

- La circulation du bois produit au Nouveau-Brunswick aux jurisdictions avoisinantes a une incidence sur les fabricants de produits à valeur ajoutée de la province, et plus particulièrement sur les plus petites entreprises qui ont tendance à produire des produits d'aspect esthétique supérieur. Il semble exister une certaine possibilité pour des mesures de principes qui introduiraient une plus grande transformation à valeur ajoutée dans la province. Toutefois, des mesures qui empêcheraient une libre circulation du bois entre les jurisdictions, ou inviteraient des mesures de rétortion de la part de provinces ou d'états avoisinants ne devraient pas être considérées.

- Le problème grave du vol de bois, ainsi que le risque éternel de sanctions phytosanitaires dans les marchés d'exportation, nous rappelle l'importance croissante de documenter la provenance des produits du bois. Les autorités provinciales et fédérales appropriées se doivent de collaborer à l'élaboration d'un système de déclaration et de surveillance de la circulation du bois, au Canada et aux frontières internationales.

- L'utilisation de "facilitateurs de fibres" en Colombie-Britannique s'est avéré un succès auprès des fabricants de produits à valeur ajoutée de cette province dans leur accès

aux matières premières. Ces facilitateurs, qui sont financés par des sociétés d'État provinciales mais embauchés par un organisme privé, servent d'intermédiaires entre les entreprises de produits à valeur ajoutée et les usines de transformation primaire en bâtissant des relations entre fournisseurs et entreprises. La province du Nouveau-Brunswick devrait considérer la création d'un tel programme comme projet-pilote.

- Dans le cas de fabricants de produits à valeur ajoutée plus petits, il est parfois clair que les problèmes en matières premières perçus ne sont que des problèmes de fonds de roulement. La province du Nouveau-Brunswick devrait considérer la création d'un programme qui aiderait les petites entreprises, plus particulièrement celles utilisant les essences de feuillus, à accéder aux fonds de roulement qui leur permettraient de compétitionner contre les grands acheteurs (incluant les intermédiaires hors-province) qui possèdent les ressources financières nécessaires pour faire affaires avec les fournisseurs de matières premières selon la méthode de la comptabilité de caisse.

- Lors des entrevues, nous avons reçu le message solide et répétitif que des allocations des terres de la Couronne devraient être attribuées directement aux fabricants de produits à valeur ajoutée. Plusieurs fabricants de produits à valeur ajoutée plus petits n'ont pas trop de succès lors de l'achat de matières premières auprès des détenteurs de permis de coupe sur les terres de la Couronne et des importants titulaires de sous-permis d'exploitation forestière, et se sentent dans l'impossibilité de faire affaires avec ces fournisseurs possibles. Les détenteurs de permis de coupe et les importants titulaires sous-permis d'exploitation opèrent dans un environnement compétitif et la profitabilité doit demeurer leur centre d'intérêt; ils ne peuvent donc accorder qu'une attention limitée aux plus petits fabricants de produits à valeur ajoutée ainsi qu'à leurs demandes de petites quantités de matières premières.

- Le concept de "permis virtuel" mérite d'être examiné de plus près. Une allocation de bois des terres de la Couronne serait affectée à l'ensemble de l'industrie des produits à valeur ajoutée, leur donnant ainsi une égalité avec les détenteurs de permis de coupe sur les terres de la Couronne. Au lieu d'exploiter une certaine aire géographique, le permis virtuel leur donnerait droit de coupe pour des types spécifiques de fibres ligneuses à travers la province. L'allocation serait gérée en fiducie pour les fabricants de produits à valeur ajoutée par une agence gouvernementale ou un groupe d'industries.

- Les politiques provinciales et fédérales encouragent présentement une intégration en aval des usines de tranformation primaire dans la fabrication de produits à valeur ajoutée, mais décourage fortement une intégration en amont des fabricants de produits à valeur ajoutée qui désirent mettre sur pied des usines de transformation pour leur usage privé. Des changements à ces politiques sont recommandées, plus particulièrement celles concernant les bois de feuillus. La capacité de convertir du bois rond en bois d'oeuvre pour leur usage privé augmenterait les options disponibles aux

plus petits fabricants de produits à valeur ajoutée, et par la même faciliterait des ententes d'approvisionnement entre fabricants de produits à valeur ajoutée et propriétaires de boisés privés.

- Les terres de la Couronnes sont actuellement gérées pour une production optimale d'E-P-S et de bois de feuillus. Il en résulte donc un déclin de certaines autres essences tel le cèdre et le pin blanc qui sont importantes aux activités de fabricants de produits à valeur ajoutée. La province devrait s'assurer de la durabilité et de l'accroissement de l'approvisionnement future du cèdre et du pin blanc.

- Un certain nombre de fabricants de produits à valeur ajoutée perçoivent un besoin grandissant pour des sources locales de matières premières certifiées du point de vue de l'environnement. Il est recommandé que la province explore des moyens par lesquels une portion des terres de la Couronne pourrait être vérifiée et certifiée par un tiers indépendant afin que ses matières premières peuvent être disponibles aux fabricants de produits à valeur ajoutée possédant les chaînes de possession appropriées.

- Il existe au moins trois domaines où une innovation de la conception et de la commercialisation des produits pourrait signifier des bénéfices appréciables pour les fabricants de produits à valeur ajoutée qui recherchent de nouvelles sources de matières premières : (a) une utilisation des essences sous-utilisées, (b) une utilisation de bois de feuillus de qualité inférieur, plus court et de faible diamètre, et (c) une substitution de panneaux dérivés du bois pour du bois plein. La recherche et le développement dans ces domaines est critique et devrait être traité en priorité et à grande vitesse sous l'égide du Fonds d'innovation de l'Atlantique ou de d'autres programmes provinciaux appropriés.

Dans son ensemble, la recherche nous démontre le besoin de meilleurs liens et communication entre les divers composants de l'industrie forestière de la province. Les problèmes existants d'approvisionnement en matières premières, bien que sérieux pour les entreprises affectées, sont rarement le résultat d'un manque de fibres ligneuses. Ces problèmes sont souvent causés par une inégalité de la taille, des attentes, de la culture organisationnelle et la capacité financière entre les entreprises plus importantes qui contrôlent le plus grand nombre de bois disponible et les plus petites entreprises de bois à valeur ajoutée qui ont besoin de ce bois. Des modifications peu importantes feraient toute la différence, et une redirection de volumes relativement minimes de matières premières, conformément à des initiatives stratégiques ou autres, pourraient apporter des gains appréciables pour les petites entreprises qui forment le secteur des produits à valeur ajoutée.

Le tout respectueusement soumis,

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WHERE WILL WE GET THE WOOD?

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Section One: Background and General Information

Forest-based industry on the whole is arguably more mature, more conservative and more resistant to change than any other economic sector in New Brunswick. Until the early 1990s, value-added manufacturing was not perceived as a significant or even relevant part of the province's wood industry. Since then, the value-added sector has experienced a dramatic expansion in size, importance and credibility. While differences in priorities, attitudes and outlook still prevail between primary sawmills and value-added manufacturers, the strengths of the value-added industry now outweigh most of its weaknesses. This will become even more the case as the sector grows and continues to gain economic importance.

Since 1997, provincial government policy has formally designated value-added manufacturing as the preferred end use for wood fibre from Crown allocations. Significant expansion of the value-added sector has resulted from this policy. Members of the industry generally believe that sufficient wood resources exist to support the majority of the value-added sector's needs, *so long as wood is directed toward its optimum end use*. This is not now the case. That New Brunswick harvests 10 per cent of Canada's wood fibre, yet produces only 4 per cent of its value-added wood products, suggests considerable scope for improvement.

This project's research has been done, and this report has been written, from the perspective of value-added wood manufacturers. It starts from the premise that value-added manufacturing represents the only direction in which forest-based industry can sustain growth, and makes the argument that the companies adding most value to wood ought to have first call on it.

1.1 The New Brunswick Forest Resource

Commercial access to the forest resource in New Brunswick is a complex subject. About half of the province's forest is divided into 10 Crown licenses, which are allocated to eight companies; also on those 10 Crown allocations, about 80 sub-licensees have subordinate harvesting rights. Private woodland tenure encompasses about 35,000 woodlot owners, of which an estimated 8,000 to 12,000 are commercially active at a given time; these are at least nominally represented by seven marketing boards operating under the aegis of the New Brunswick Forest Products Commission. Activities involving Crown timber are governed by the Crown Lands and Forests Act; private woodlands fall under the Natural Products Act (formerly named the Farm Products Marketing Act). Two provincial government departments have jurisdiction over differing policy elements of the forest industry and forest products manufacturing.

This infrastructure, with its web of internal dependencies, long-standing alliances and economic patterns, has evolved over the past few decades (and especially since the introduction of the Crown Lands and Forests Act in 1982) to be very efficient at supplying wood fibre to the primary forest industry - that is, to a small number of large companies using

large volumes of low-quality (or at least undifferentiated quality) fibre. The system is beset by inertia and is resistant to change. The value-added sector, by contrast, consists of a large number of small companies requiring much smaller amounts of high quality (or at least highly specific) raw material.

Several following sections of this report provide more detail on Crown licenses, sub-licenses and private woodlots. Industrial freehold, a further type of forest land tenure in New Brunswick, is not sufficiently relevant to this project to warrant further examination.

1.2 Value-added Wood Product Manufacturing in New Brunswick

The New Brunswick specialty and value-added wood manufacturing industry consists of about 265 companies which contribute more than $650 million a year to the provincial economy. The industry employs more than 5,800 people, and generates gross annual payroll in excess of $125 million. More than half of these companies are located in rural parts of the province. According to provincial government statistics, it is one of our fastest-growing sectors, with expansion in the order of 20 per cent projected for 2000 - 2001. Studies done in New Brunswick and elsewhere show that on average, value-added manufacturing creates 4.7 times more jobs per unit of wood harvested than does the primary sector (and these are net new jobs, as sawmills still have to process wood before it can be used in value-added manufacturing).

The value-added wood industry has enjoyed favourable market and business conditions since 1993 and the sector has expanded dramatically, both in terms of the number of companies producing value-added goods and in the aggregate sales volume of those goods. Employment in the sector has grown by 2,000 jobs in the past five years. Business characteristics of the value-added sector break down generally in the following three broad sub-sectors:

Softwood and Hardwood Remanufactured Products
This segment of the industry is closest to the primary sawmill sector. Many companies included here are in fact sawmills that remanufacture a portion of their output, while a smaller number are stand-alone remanufacturing operations. Products of this sub-sector include cut stock, truss and joist components, turning squares, moulding blanks, flooring blanks, fingerjointed lumber and pressure-treated lumber. Remanufacturing is the high-volume, low-margin end of the value-added sector. Its main characteristics include:

- relatively high capital costs of entering the business
- very high sensitivity to raw material cost and availability
- markets for remanufactured products usually follow commodity trading patterns and tend to be vulnerable to economic cycles

- an estimated 40 per cent of New Brunswick remanufactured products are exported
- remanufacturing on average creates 2 to 2.5 times more jobs per unit of wood harvested than the primary sawmill sector

Structural and Engineered Wood Products

Products of this sub-sector are those requiring approval under building codes, and include I-joists, laminated beams and roof trusses. Market demand for these types of products has grown rapidly over the past decade due to popularity of open-concept house design with wide-span ceilings and roofs, and scarcity of high-quality solid structural timber. Characteristics of this sub-sector include:

- high capital costs of entering the business, particularly for I-joists
- testing and certification for building code approvals (as many as five separate approvals are required in Canada and the United States) are lengthy and costly
- the sub-sector creates 2.5 to 3 times more jobs per unit of wood harvested than the primary sawmill sector. Knowledge requirements are high; wages are above average
- scope for expansion in structural and engineered products is good so long as US housing and construction markets remain strong

Appearance Products

This is by far the largest and most dynamic segment of the value-added sector and includes every wood product marketed on the basis of eye-appeal to consumers: furniture, cabinets, flooring, mouldings, windows and doors, fence and deck components, lawn and garden items, manufactured homes, staircase components, pre-stained shingles, exterior siding, craft and hobby items, store fixtures and a wide range of other items. Characteristics include:

- capital costs of entering the business range from low to moderate
- very small companies (e.g. three or four employees) can be completely viable
- raw material cost and availability are not usually a dominant factor
- product design and marketing are extremely important
- products are sold in niche markets, price is often a secondary factor
- 75 per cent of products are sold in export markets, primarily the US and Europe
- employee knowledge and skill requirements are high; wages are average

Overall strengths of the value-added sector include growing cohesion among companies; productivity advantages inherent in new manufacturing technology; declining cost of that technology and strong business morale. Opportunities for expansion are numerous in a wide range of product and market areas. Weaknesses include lack of access to capital; shortage of skilled employees; lack of management expertise and the general lack of influence, credibility and clout that afflicts all small and mid-sized business. The most pronounced and systemic weakness, consistently identified by companies in the sector as a threat to their viability and a constraint to their growth, is the lack of access to raw material.

Section Two: Terms of Reference and Methodology

An initial proposal for the funding needed to conduct this study was submitted by the Wood Products Group to ACOA and the Province of New Brunswick in February 2000. Approval was received in mid-May and GDS Enterprises Inc. of Saint John, NB (see Appendix A) was retained to conduct the study under the general direction of a Steering Committee.

2.1 Study Rationale and Objectives

In early 2000, the New Brunswick government began a comprehensive review of policies and programs relating to the forest industry. As well, the five-year management plans required by the Crown Lands and Forests Act are due for review and revision in 2002. The value-added sector wishes to have, for the first time, a voice in the proceedings and input into the policies and programs that result. To be credible, such input needs to be backed by the research and analysis provided by this study. Specific objectives of this study are:

- to quantify the approximate characteristics of the raw material requirements of the value-added wood product sector by volume, species, grade, dimension and other relevant variables;
- to identify obstacles that prevent wood fibre from being put to its optimum end use;
- to identify potential incentives, partnerships, policy developments and any other mechanisms that could assist in directing raw material to its optimum end use, creating stability and supporting long-term growth for the value-added sector.

2.2 Definition of Value-added

The intent of the study was to begin by looking at all forms of wood fibre used as raw material by value-added manufacturers: softwood and hardwood, in the round and as-sawn lumber, with the expectation that the focus would narrow as the work progressed. The Steering Committee agreed on the following as a working definition of the term "value-added product":

> ... a product in which value has been added to hardwood, softwood, or a panel product (e.g. particleboard, MDF, OSB) by further manfufacturing or processing after the primary sawmill and kiln-drying stages.

- for the purpose of this study, it is immaterial whether the value-added manufacturing process begins with roundwood, sawn material, waste or byproduct, or a panel product;

- for the purpose of this study, value-added product includes landscape ties, laths, cedar shingles, veneer, fuel pellets and extruded firelogs;

- for the purpose of this study, value-added product does not include commodity particleboard, MDF or OSB (unless further processed), traditional firewood, Christmas trees or wreaths, weir stakes or pilings.

2.3 Steering Committee

The committee was selected to elicit direction and advice from the combined perspectives of the value-added manufacturing sector, Crown licensees/sub-licensees and the primary sawmill sector, the private woodlot sector, and relevant segments of the federal and provincial governments. The Steering Committee and the consultant met on May 24, 2000, and January 31, 2001, in Fredericton. Committee members were:

Fred Nott	Wood Products Group (Chair)
Harold Crabbe	SWP Industries Ltd.
Mike Thorne	Ashley-Colter (1961) Ltd.
Richard Belanger	Atlantic Canada Opportunities Agency
Jim Richard	Business New Brunswick
Barry Nelson	NB Department of Natural Resources and Energy
Derek MacFarlane	Canadian Forest Service
Linda Gould	New Brunswick Forest Products Commission
Yvon Poitras	New Brunswick Forest Products Association
John Levy	SNB Forest Products Marketing Board

2.4 Terms of Reference

The study's overall objective has been to assemble data, draw conclusions and provide, or at least suggest, credible answers to the questions below:

- What are the overall raw material requirements of the value-added sector, now? What does the sector project these requirements will be in five years?

- What locally produced raw material does the value-added sector need that it cannot get? What species, grades, dimensions, etc. are most affected? Where is this raw material going?

- What is the dollar impact of this raw material shortage on the value-added sector? How much would value-added product sales grow if raw material were available? How many jobs would be created?

- How are the recent changes in Crown stumpage rates likely to affect raw material supplies for value-added manufacturers?

- What role exists for underutilized species in the raw material mix?
- How much wood is leaving the province that could realistically be expected to undergo value-added manufacturing here?
- How much wood is coming in to the province to supply value-added manufacturers here?
- What opportunities exist, or could realistically be envisioned, for raw material supply partnerships between the primary and value-added sectors? Between private woodlot and value-added sectors?
- What is the likely impact of Native logging on the sector?
- How does the certification issue fit with the foregoing?
- How does the current state of the resource compare to that reported in the 1998 ACOA report *The Wood Industry in Atlantic Canada: a Focus on Value-added - Part 1: State of the Resource?*
- Do relevant policies or practices exist in other jurisdictions that could provide useful models for New Brunswick?

2.5 Scope of Work

At their first meeting, the consultant presented the Steering Committee with a research plan in which an extensive list of diverse primary and documentary sources were to be used in developing credible answers to the questions above.

2.5.1 Documentary research

This component consisted of a review and compilation of published information including Department of Natural Resources and Energy utilization surveys, Canada Forestry Service data on interprovincial wood flow, New Brunswick Forest Products Commission data on roundwood flow through marketing boards, Statistics Canada data on Canada-United States wood flow and other relevant information.

2.5.2 Primary research

This was the dominant aspect of the study and consisted of personal interviews under guidelines approved by the Steering Committee. One set of interview guidelines was used for Wood Products Group members and sub-licensees, a second guideline was used for

interviewing licensees and a third was used for the marketing boards (see Appendix B). Over the period of late May to mid-September, 72 formal interviews were conducted with:

- forty-four manufacturing members of the Wood Products Group in New Brunswick. Two of these companies are also licensees; and, 16 of these companies are also sub-licensees
- three sub-licensees who are not members of the Wood Products Group
- all Crown licensees. Six interviews were done, representing 10 licensees
- six of the seven forest product marketing boards and the New Brunswick Federation of Woodlot Owners, representing woodlot owners (interviewed by telephone)
- ten sources in British Columbia, Quebec, Maine, Finland, Sweden, Germany, New Zealand, England and Scotland (interviewed by telephone and e-mail).

The interviews with the three sub-licensees were conducted at the end of the interviews with the manufacturing members of the Wood Products Group using the same questionnaire. These results are included in Section Five. Two of the three non-Wood Products Group member sub-licensees interviewed produce value-added products and the third, primarily a hardwood sawmill, produces pit props for the mining industry which some consider value-added products.

Section Three: Research Results - Review of Documentary Sources

3.1 New Brunswick Timber Supply

The 35,000 woodlot owners of New Brunswick collectively own 30.4 per cent of New Brunswick's forest land. The balance is either owned or controlled by pulp and paper and sawmilling companies. Almost all of the Crown land has been allocated in 10 licenses to the pulp and paper sector, except for one license, a sawmilling license (formerly Juniper Lumber) controlled by Nexfor, a pulp and paper company. It is the duty of the licensees to provide wood from the Crown license to 75 sub-licensees that operate sawmills, plywood, veneer and other board plants in the province. See Table 3.1.1 below for a breakdown of land ownership.

Table 3.1.1. New Brunswick Land Area by Ownership (1998)

Tenure	Productive Forest ('000 ha)	Non-Productive Forest	Total	% of Total Productive Forest
Small Private	1,802,031	80,746	1,882,777	30.4%
Industrial	1,248,205	24,427	1,272,632	21.1%
Crown	2,870,728	49,098	2,919,826	48.5%
Federal			157,903	
Total	5,920,964	154,271	6,075,235	100%

The Annual Allowable Cut in New Brunswick is calculated for each of the land tenures, and represents an estimate of the sustainable harvest given growth and mortality of the forests. It takes into account investments in silviculture and withdrawals of productive forest for non-timber reasons, such as riparian zones along waterways, parks, protected areas, etc. The AAC is calculated on a five-year basis as part of the Crown Lands and Forests Act management planning process. Industry watchers expect that the next AAC calculations will see substantial reductions to accommodate withdrawals for protected areas and for Native allocations, although wood represented by the latter is still available to New Brunswick companies on a free-market basis. Table 3.1.2 outlines the AAC by land tenure.

Table 3.1.2. New Brunswick Annual Allowable Cut, Net Merchantable Volume, 1997-2002

Tenure	Softwood (m^3 solid)	Hardwood (m^3 solid)	Total (m^3 solid)
Private	1,689,656	1,514,371	3,204,027
Industrial	1,770,320	973,693	2,744,013
Crown	3,447,122	1,575,662	5,022,784
Total	6,907,098	4,063,726	10,970,824

Source: CCFM Compendium of Forestry Statistics.

The best source of information on timber harvests in New Brunswick is the DNRE annual Timber Utilization Survey. It is a legislative requirement for industry and the forest products marketing boards to submit wood (roundwood and chips) harvest and consumption information including imports and exports to the Department. It must be recognized, however, that this information is only as accurate as the reporting systems in place, and in some instances may be subject to some error. In the case of private woodlots, for example, only wood which is reported to the marketing boards is included in the survey. Any wood which is sold "outside" the boards is not reported (see below and Section Seven for a more complete discussion of woodlots). Table 3.1.3. indicates the reported harvest for 1998, the last year for which data were available. It is from this information source that wood consumption information for all licensees and sub-licensees was derived for this study.

Table 3.1.3. New Brunswick Primary Wood Products Harvested (1998)

Tenure	Softwood (m^3 solid)	% SW	Hardwood (m^3 solid)	% HW	Total (m^3 solid)	% Total
Private	1,654,965	21.7%	686,076	24.1%	2,342,041	22.4%
Own & Industrial Freehold and Federal Lands	2,244,498	29.5%	838,054	29.4%	3,082,552	29.5%
Crown	3,717,427	48.8%	1,323,032	46.5%	5,040,459	48.2%
Total	7,616,890	100.0%	2,847,162	100.0%	10,464,052	100.0%

Source: 1998 New Brunswick Timber Utilization Survey

In the1998 ACOA report titled *The Wood Industry In Atlantic Canada: A Focus on Value Added*, a six-year picture of the annual allowable cut for both hardwood and softwood was presented against the actual harvest, as demonstrated below. The final column representing the 1998 figures has been added using the most up-to-date estimates available from DNRE.

Table 3.1.4. New Brunswick timber supply and harvest, 1990 to 1998.

	1990 (m^3)	1991 (m^3)	1992 (m^3)	1993 (m^3)	1994 (m^3)	1995 (m^3)	1998 (m^3)
Softwood Harvest	7,133,000	6,693,000	7,405,000	7,153,000	7,276,000	7,750,000	7,616,890
Softwood AAC	6,843,000	6,843,000	6,843,000	6,843,000	6,843,000	6,843,000	6,907,098
Deficit/Surplus	-290,000	150,000	-562,000	-310,000	-433,000	-907,000	-709,792
Hardwood Harvest	1,691,000	1,949,000	1,800,000	1,806,000	1,993,000	2,305,000	2,847,162
Hardwood AAC	4,161,000	4,161,000	4,161,000	4,161,000	4,161,000	4,161,000	4,063,726
Deficit/Surplus	2,470,000	2,212,000	2,361,000	2,355,000	2,168,000	1,856,000	1,216,564
Total Harvest	8,824,000	8,642,000	9,205,000	8,959,000	9,269,000	10,055,000	10,464,052
Total AAC	11,004,000	11,004,000	11,004,000	11,004,000	11,004,000	11,004,000	10,970,824
Deficit/Surplus	2,180,000	2,362,000	1,799,000	2,045,000	1,735,000	949,000	506,772

At first glance, one could conclude from the data that the overall timber surplus in 1998 (both softwood and hardwood) appears to be only 25 per cent of the estimated surplus in 1990. During this period, the softwood harvest has exceeded sustainable levels by a mean of 6 per cent, while hardwood utilization has risen to 70 per cent of the AAC from the 46 per cent utilized in 1990.

We believe that the picture presented in Table 3.1.4. depicts an optimistic view of the timber resource. Particularly in regard to the private woodlot sector, there are no assurances that the stated harvest levels represent accurate accounts of true harvests. Most boards have admitted that since 1992, harvest levels of softwood must have exceeded sustainable levels, but there is no mechanism to establish by how much. Information provided by the Forest Products Commission indicates that reported softwood sales volumes by boards have a mean distribution of about 100 per cent of the AAC since 1992 (see Appendix C). We also know that this volume does not include exports or direct purchases from individuals and brokers by New Brunswick industry. The best guess by the boards of the additional sales could be in the order of 30 per cent to 50 per cent of the reported volumes. What is known is that the difference between the reported softwood volumes purchased by New Brunswick industry from the 1998 timber utilization survey (1.65 million m^3) and the Forest Products Commission's 1998 data of marketing board domestic sales (1.54 million m^3), demonstrates at least a 10 per cent discrepancy. This supports the boards' belief that harvest levels are indeed under-reported by a significant amount.

Future changes in Crown land allocation due to the implementation of the new protected areas strategy is estimated by the DNRE Forest Management Branch to result in a reduction of at least 170,000 m^3 in total allocation due to the operational limitations imposed on the protected spaces. Should the private woodlot sector re-evaluate its sustainable harvest potential, it is our opinion that a significant decline in this number should be expected.

3.2 Timber Imports and Exports

The New Brunswick forest industry has utilized on average about 9 million m^3 of softwood annually between 1994 and 1997 (Derek MacFarlane, Canadian Forest Service). Of the 1.5 million m^3 of roundwood reported to be imported, 88 per cent (1.32 million m^3) is softwood imported from neighbouring provinces and the State of Maine. According to MacFarlane, 47 per cent of all imports originated from Nova Scotia, 28 per cent from Maine, and 19 per cent from Quebec. MacFarlane also reported that an estimated 1 million m^3 of hardwood and softwood is exported (mostly to Maine), leaving a net import level of hardwood and softwood of about 500,000 m^3. See Appendix D.

Each year, the Department of Natural Resources and Energy conducts a timber utilization survey amongst all New Brunswick processing facilities and sawmills that utilize more than 500 m3 annually.

The import/export summary from the latest survey available, 1998, is presented in Table 3.2 below. Exports from the private woodlot sector are not included in the survey results.

Table 3.2. New Brunswick Net Imports of Wood, 1998

1998		Net Import/(Export)			
Product	**Source/ Destination**	**Spruce, Fir and Jack Pine**	**White and Red Pine**	**Cedar**	**Hardwood**
Roundwood	Quebec	22,754	1,756	-612	-113,790
	NS	533,467	13,666	0	72,263
	PEI	121,394	2	0	28,716
	Maine	114,003	3,973	77,256	-568,950
	Other	0	3,000	0	0
	TOTAL	791,618	22,397	76,644	-581,770
Chips	Quebec	855,527	0	0	-2,300
	NS	12,929	0	0	0
	PEI	0	0	0	0
	Maine	76,282	0	0	-125,710
	Other	3,334	0	0	0
	TOTAL	984,072	0	0	-128,020
Total Fibre	Grand Total	1,739,690	22,397	76,644	-709,800

The main concern regarding exports of hardwood is the lack of information regarding product quality. It may be that the majority of hardwood exports are of relatively low grade pulpwood, earmarked for either OSB mills or pulp mills in Maine. However, according to the Marketing Boards, there is also a significant quantity of high-grade veneer and sawlog quality hardwoods exported to Maine. It is this undefined quantity of quality-grade products which would be of most interest to the New Brunswick value-added sector.

Section Four: Research Results - Experience and Policy in Other Jurisdictions

This part of the project consisted of a review of government policies intended to promote value-added wood products manufacturing in other jurisdictions. It was surprising to discover that very few of the prominent forestry nations have specifically designed policies in place to promote the value-added wood products manufacturing sector. The promotion of value-added manufacturing in most jurisdictions falls simply under the auspices of regional economic development. In Finland, Sweden, New Zealand and the United States, support for the value-added sector falls under the blanket of regional economic development. Officials were quite guarded about providing information to Canadians as we are viewed as the competition. In fact, the two jurisdictions with the most forward looking policies were found in Canada: New Brunswick and British Columbia.

4.1 New Brunswick

The Province of New Brunswick's Department of Natural Resources and Energy issued a policy statement in 1997 titled "Our Forests Have a Value-added Future". The key purpose was to ensure that all Crown wood fibre is completely utilized from the bark to the fibre to the sawdust and other residue. The policy stated:

- all new Crown timber allotments will be awarded to value-added mills
- allotments may be moved from low value-added mills to higher value-added mills
- companies that create the most jobs and use fibre wisely will benefit most.

Companies that manufacture the most finished products or that add processing or supply other "in-province" plants that do finished products, will get Crown timber. When making determinations regarding allocations of Crown timber, the following criteria are being used:

- long-term viability of the project
- volume and quality of fibre being used
- employee to Crown fibre ratio
- market trends (higher rate for exports)
- product value per m^3 of fibre

As minimum standards, all sawmills must have debarking and chipping capabilities, dry kiln or kiln availability (note: dry kiln alone does not qualify as value-added). Only companies who

work at improving their value-added potential will qualify for Crown allotments. This policy has already contributed to the expansion in value-added wood products manufacturing in the last five years, and coupled with the anticipated end of the Canada/US Softwood Lumber Agreement (SLA), could lead to a substantial round of new investment in New Brunswick manufacturing in the coming years. In New Brunswick, there is now a very high level of integration in the wood business, particularly on Crown licenses. There is an elaborate system of trading between sawmills and pulp mills, with roundwood logs from licensee operations being traded for sawdust from the sawmill in equivalent volumes. In fact, only one of the province's pulp and paper mills still operates a wood room to convert roundwood to chips and it does so out of necessity due to its high dependence on private woodlot logs for raw material.

Following closely on the heels of the value-added policy, the New Brunswick economic development department issued its internal policy regarding sawmills. It said: "Financial assistance to sawmills would be limited to working capital guarantees and non-subsidized interest bearing loans at the provincial lending rate". This was further delineated by:

- For new softwood mills or any portable or modular type of mill, no financial assistance will be provided.

- To existing sawmills engaged in the manufacture of products listed under the SLA, no concessionary financing will be provided. Interest-bearing loans or guarantees can be provided under normal commercial terms.

- To existing sawmills engaging in value-added activities as defined as a new product or product not listed under the SLA, any concessionary financing will be subject to the following:

    - Financing will be limited only to that component of the plant directed at the manufacture of value-added materials.

    - A viable business case must be made for the entire operation and not limited to the value-added component.

    - The value-added activities must be incremental to the existing plant's operation and be shown to not negatively effect other New Brunswick operations.

    - Upgrading of "process production methods" such as technology improvement for greater efficiency is not considered value-added.

    - To new hardwood mills, financial assistance may be considered since they are not covered under the SLA.

4.2 Nova Scotia

In the province of Nova Scotia, there was no mention of value-added directly in any statements or in any new policy directives for the Department of Natural Resources. The province seems more intent on addressing the issues of resource sustainability, particularly on the more than 70 per cent private land. There was an economic goal in the DNR section of the 2000 budget which said, "The Department will continue to support responsible development of natural resource based industries by encouraging a competitive business climate supported by effective policies and regulations for the management and use of the province's natural resources." In personal communications with senior provincial officials, it appears likely that some sort of value-added policy statement may be forthcoming in the context of better utilization to slow down rates of harvest.

Toward encouraging better stewardship of the resource, in 1997 NSDNR introduced its Registry of Buyers of primary forest products that will allow for accurate tracking of actual harvest levels in the province. Associated with this are the new forest sustainability regulations that direct funding into forest management directly related to the levels of harvest. A more complete examination of this program is contained in Appendix E.

Within the Department of Economic Development, there is a generic program that may be applied to value-added wood product investment. The Nova Scotia Business Development Corporation (BDC) provides assistance to manufacturing, processing and technology based industries in the form of loans and loan guarantees for the purchase of land and improvements to land; purchase of construction of buildings; construction, purchase or lease back of machinery, equipment and other fixed assets. Other types of assistance may also be considered for the establishment and promotion of industry in targeted economic sectors. This program provides assistance very much on a case by case basis. There is the same nervousness about providing any assistance which might be construed as a subsidy under the terms if the SLA.

4.3 British Columbia

In 1994, British Columbia created Forest Renewal BC as a Crown corporation. Its mandate is to plan and implement a program of investments to renew the forest economy of British Columbia by enhancing the productive capacity and environmental values of forest lands, and by creating jobs, providing training for forest workers and strengthening local communities that depend on the forest industry.

In its first five years, Forest Renewal BC invested $1.66 billion in BC's forest sector, communities and workers. Forest Renewal BC's funding comes from stumpage fees paid by forest companies for the right to harvest timber on Crown land. The 1999/2000 business plan, with planned expenditures of $343 million, pushed total investments past the $2-billion mark. Specifically, Forest Renewal BC has contributed to the value-added sector through:

- Providing loans offered at prime plus 1 per cent to secondary wood manufacturers that employ fewer than 250 people, have net sales of less than $20 million annually, have a viable business plan and require financing of $250,000 to $1.25 million. Loans must be used to purchase fixed assets for expansion or plant modernization that will lead to improved productivity or viability.

- Contracting with the BC Wood Specialties Group to conduct province-wide industry training consultation and develop and deliver cost-effective training to address industry-wide needs. Training needs will be defined and prioritized regionally and supported by Forest Renewal regional offices, to ensure that duplication and overlap are minimized, and that all industry operators (including production-oriented artisans and woodworkers) have equal opportunity for input. Once the training plans are developed and approved, BC Wood will coordinate delivery of the courses.

- Providing funding to hire three fibre facilitators by regional forest industry associations to help channel additional sawn lumber to value-added wood manufacturers

4.4 Quebec

There is no firm value-added forest policy in Quebec, however there is supposed to be an unwritten understanding between the province and industries with a timber allocation that maximization of fibre value and revenues through manufacturing is expected.

In support, the province provides three financial incentives through regional development grants that are being used by the value-added sector. These are not specifically targeted to the wood sector, but instead are broadly available to any manufacturing industry. They are:

- the province provides up to half the cost for developing feasibility studies for new products, new facilities or upgrades to existing facilities;

- provides up to 30 per cent of the investment capital for new ventures or product line expansion;

- provides up to 30 per cent of the manpower costs for new ventures or manufacturing expansion.

4.5 Maine

Maine has no firm value-added policies. Under the Department of Commercial Development, there are three grant programs which appear to be utilized by the sector.

- the State provides 50 per cent funding for new products, technology and expansion up to a maximum of $10 million

- the State also partially funds the development and support of industry clusters
- provides up to $100 million in financing to develop business consortiums

Maine has seven different economic regions which are all managed differently within their own objectives. Funding comes from a collage of City, Township, State and Federal sources. One example which appears to have all four elements of support is the drive to re-develop the Loring Air Force base in Limestone, Maine. The base was closed recently and commitments were made by the federal government to "replace" the lost jobs with economic development. A series of assistance is available, from favourable building lots to loan guarantees, grants and human resources programs. Each investment opportunity is to be assessed on its own merits and an appropriate package of incentives will be prepared. One of the target sectors here is the wood business and a large New Brunswick company, JD Irving, Limited, has been actively considering an investment in an OSB plant on the site. So far, plans have been shelved due to economic (market) reasons, but this project may yet proceed which alone would place some serious new demands on New Brunswick wood supplies.

4.6 Other Jurisdictions

Specific contacts were also made with Finland, Sweden, Germany, Scotland, New Zealand and the United Kingdom. Although no specific value-added policies were uncovered, each of the jurisdictions did mention that ongoing work was being examined along the lines of developing industry clusters. This concept is explained by Michael Porter (1998) as follows:

> Clusters are the building blocks of a productive, innovative economy. A cluster is more than a single industry making a single product. Successful clusters involve a variety of related industries, suppliers and institutions all located in the same place. Consider Norway's shipping cluster. Norway is a tiny country, yet it accounts for 10 per cent of all the world's seaborne transportation. It is able to compete <u>despite</u> its high wages. Why is Norway able to be so productive and innovative? Because it has more than just shipping companies. A variety of related industries and suppliers are also present, as are highly specialized institutions. If you are going to insure a vessel anywhere in the world, chances are the most highly knowledgeable insurance underwriters will be in Norway. In Norway they have shipping lawyers, some of the best in the world and the most expert in structuring transactions. Norway's banking and financial institutions provide specialized financing not only to Norwegian ship owners but also to ship owners around the world. Norwegian universities have substantial maritime R&D capabilities. In sum, there is a critical mass of unique knowledge and capability in Norway in the maritime field that comes from the chain-reaction effect of combining a group of firms, industries, and institutions in the same field in the same place.

The concept is being actively promoted by governments for the value-added wood business in Scotland, New Zealand, Germany and the United Kingdom. They are hoping to encourage the grouping together of companies in close geographic proximity to undertake the manufacture of products in a co-operative fashion. Northern Italy has been identified as a region with an effective cluster of value-added wood product manufacturers. Companies will often pool their resources to fill an order, i.e. any one company might not be big enough to satisfy a large order, but two or three combined have the capacity to satisfy the customer. This may be three companies which do the same thing, or three companies which each handle one aspect of the production process. In either case, the cluster concept works to the mutual benefit of all parties. Another interesting characteristic of clusters is that often they have occurred "spontaneously" or naturally (as in the Italian example), with no specific impetus from government.

Section Five: Research Results - Interviews with Value-added Wood Product Manufacturers

5.1 Overview of Value-added Interviews

The intent of the Steering Committee was that all full members (i.e. manufacturing companies) of the Wood Products Group in New Brunswick would be interviewed, and fifty-four such companies were identified at the start of the study. Two of these companies were subsequently excluded as they did not renew their memberships for 2000 and another company was dropped from the list as its parent company, also a member, was interviewed instead. Another company was deemed not suitable to interview, leaving 50 target companies. The consultant was able to interview 44 of those; the remaining six either declined to participate or were simply unavailable. The companies are identified in Appendix F.

A letter was sent to each respondent by the Wood Products Group, introducing the consultant and describing the project. Respondents were given the assurance of anonymity, meaning that their responses would not be attributable to them as individuals. Raw data would be protected, and only viewed in aggregate by the Steering Committee. Consequently, interview results as reported in this section have been blended to provide generalized responses to the respective interview questions; with the only exception being when a respondent specifically asked to have a comment attributed to them in the report.

5.2 Interview Results

The interviews accumulated both quantitative and qualitative information. Quantitative data is specific to the respondents and relates to raw material requirements for all types of products. This information was organized in spreadsheet format with each company having an individual spreadsheet presenting its results. In order to protect the confidentiality of information, the identity of each respondent has been masked. This data is summarized in Appendix G.

The qualitative information is presented in the following pages on a question by question basis. All responses to questions are represented, with the consultant's commentary in italics. When more than one person gave the same response to a question, the percentage of respondents is shown in brackets. Specific comments recorded during the interviews have been included in Appendix H and are presented by question. The most important comments have been incorporated into the main body of the text.

Question 1: In which of the following forest/wood sector organizations are you a member?

This question was asked as an icebreaker to get a sense of affiliations held by respondents. At the time interviews were done, the Sub-Licensee Alliance was still separate from the Forest Products Association. Many companies are also members of organizations specific to their product, such as the Hardwood Flooring Manufacturers Association and the Kitchen Cabinet Manufacturers Association. Table 5.2.1 shows the responses, by organization.

Table 5.2.1. Organization membership?

Organization	No. of Responses
WPG	44
MLB	14
Sub-Licensee	11
NBFPA	11

Question 2: How many years have you been in business?

Of the companies interviewed, more than 50 % had been in business for 10 or more years, while 32 % had been in business for less than five years (see Table 5.2.2). This depicts, overall, a fairly young industry in which companies have a median age of about 11.5 years and an average (mean) age of 14.6 years. Although not specifically addressed in the interview questionnaire, two characteristics are obvious: (a) the younger companies tend have been exclusively value-added manufacturers from their beginnings, while the older companies tend to have started life as primary sawmills and have since diversified into value-added products; (b) regardless of age, companies tend to be located in rural areas and smaller communities in the province.

Table 5.2.2. Years in business?

Years in Business	No. of Respondents	(%)
1 to 5 years	15	32
6 to 10 years	7	16
10 to 25 years	11	23
25 + years	13	29
Total	47	100

Question 3: What are your annual sales of value-added wood products?

Almost half the companies had sales below $2 million, and 77% had sales below $10 million (see Table 5.2.3.). The median value was about $2.8 million in annual sales while the mean was $12.3 million, depicting a business sector composed disproportionately of small companies.

Table 5.2.3. Annual sales category.

Annual Sales	No. of Respondents	(%)
Under $2 million	23	49
$2.1 - $10 million	13	28
$10.1 - $25 million	3	6
$25.1 - $50 million	3	6
Over $50 million	4	9
No answer	1	2
Total	47	100

Question 4: What products do you make?

The companies manufacture a wide range of products which can be categorized by species group (hardwood/softwood/panel) and by broad sub-sector (remanufactured, engineered and appearance products). Table 5.2.4. provides an overview of the products of New Brunswick's value-added wood products manufacturers.

Table 5.2.4. Value-added products.

Product	Species Group (S,H,C, P, Po, eWP)	Sub-sector (R,E,A)
Cabinet Doors	H, eWP, P	A
Cabinets	H, eWP, P	A
Fences and Fence Components	S, C	R
Fingerjointing	S, C	R
Fixtures	H, eWP, P	A
Flooring	H, S	A
Furniture	H, eWP, P	A
Furniture components	H, eWP, P	R, A
Gazebos, Garden Sheds, Playhouses	S, C	R, A
Glue Laminated Beams	S, H	E
Hardwood Dimension Lumber	H	
Hardwood Specialty Items and Components	H	R, A
Joists & Trusses	S, P	E
Laths	S, C, Po	R

Product	Species Group (S,H,C, P, Po, eWP)	Sub-sector (R,E,A)
Log Homes and Panel Cabins	S, C	E, A
Moulding & Custom Millwork	H, S, Po, P, eWP	A
Oriented Strand Board (OSB)	H, S, Po	R
Pallets & Boxes	H	R
Edge-glued Panels	H, eWP	R
Shingles	C	R
Softwood Dimension Lumber	S	
Softwood Specialty Items and Components	S	R, A
Turnings and Turning Squares	H, S, eWP, C	R, A
Veneer	H	A
Wood Treating	S	R

Note: Species S = softwood, H = hardwood, C = cedar, eWP = white pine, P = panels, Po = poplar
Sub-sector: R = remanufactured, E = engineered wood products, A = appearance

Question 5: Where are your markets?

The value-added companies are heavily export oriented, particularly toward the Eastern United States, where 81% of the companies sell products. This has been driven largely by geographic proximity, favourable currency exchange rates and a robust economy which has lasted for many years, with relaxed trade terms driven by the Canada-US Free Trade Agreement. As well, government officials at both levels have promoted and encouraged trade with US customers. Not surprisingly, 64% of companies sell in Atlantic Canada. Given that many of these companies are small-sized firms with sales below $2 million, most have started their businesses modestly, selling to local markets first. Opportunities for expansion have been created after becoming well-established locally.

The category "Other" was heavily weighted toward companies selling into Quebec and Ontario, which represents an important market for nearly half the companies. Again, this is not surprising given the strong ties many Maritimers have with central Canada. Lines are often picked up through referrals by satisfied customers and, in many cases, these customers are affiliated in some way with companies in central Canada. 23% of companies sell into the rest of the US, while 19% sell into Europe. Table 5.2.5. outlines the markets which these companies access.

Table 5.2.5. Markets (geographic)

Market Area	No. of Respondents*	(%)
Eastern US	38	81
Atlantic Canada	30	64
Rest of US	11	23
Europe	9	19
Other (mostly Que. and Ont., and Asia)	22	47
No answer	2	4

*Respondents identified as many markets as applicable

The market mix for the value-added wood producers is more diverse than for commodity products such as softwood lumber, but it is still heavily weighted toward US sales. Most companies have expressed interest in expanding markets both geographically to other countries where the dollar is weak and to new customers in existing markets.

Question 6: What type of markets do you sell to?

Two main channels for sales are wholesalers and direct to customer including original equipment manufacturers (OEMs), as indicated in Table 5.2.6. Selling to wholesalers is a very desirable channel for so many companies because in a sense, it is a channel which, once established, is fairly easy to service. This channel is critical for gaining access to a wide range of customers over fairly broad geographic territories. The wholesaler used to be "all things to all people" in that not only did they stock the product, but they also did a lot to sell. This has changed recently, however, and many describe the wholesaler as a "mover of boxes" and a kind of a bank. What a wholesaler does these days is stock the product and take orders. There is very little active selling since many of the outside and inside sales staff have been cut, and those that remain are focussed on answering the phone to take orders. Of course, this strategy works well in hot markets with established lines and customers. There is a lot of competition emerging for wholesalers, however, as box stores are now selling to contractors directly at prices below those offered by wholesalers. At this time, however, only 17% of companies (generally the largest) sold directly to box stores. It is difficult for a small producer to sell to a box store directly as this type of buyer is big and terms are very tough. In order to crack this market, small producers must band together to sell as one, and organizing such efforts is challenging. Therefore, for the time being, wholesalers will probably continue to dominate as a sales channel for New Brunswick value-added companies.

The predominance of selling direct to customer is due in large part to two factors: many of these companies are selling intermediate components or parts to manufacturers which in turn incorporate the items into a finished product (for example, cabinet doors sold to cabinet shops); and, manufacturers sell to contractors mostly located in relatively close proximity to the manufacturer. It is also interesting to note that 45% sell direct to retail, which indicates a

close link between the manufacturer and the end user of the product. Use of high quality marketing materials is critical to support this sales channel and the manufacturer must stay in close contact with the retailer if long-term success is to be achieved.

Table 5.2.6. Market channels.

Market channels	**No. of Respondents***	**(%)**
Wholesaler	29	62
Box Store	8	17
Retailer	21	45
Direct to Customer (mostly OEM)	27	57
Other (individual customer sales, brokers, architects)	6	13
No answer	2	4

* Respondents identified as many as applicable

Question 7: How are your products marketed?

Two unexpected results were that (a) 49% of the companies used a commissioned agent, and (b) 32% reported using the Internet to market or sell products (on the latter point, respondents were specifically queried to be sure that just having a Web page did not qualify as a yes response to this method). The use of commissioned agents is an interesting method of entering into a new market, and in many cases, given the small size of the companies in question, represents the best method of gaining market access and sales quickly. Many companies, however, are nervous about the quality of the agent - How do they find a trustworthy individual or firm to represent their interests? As well, many manufacturers question the value a commissioned agent brings relative to the cost, and as such will often be reluctant to engage such services. It is interesting to note, however, that while 29 companies reported using wholesalers, only 15 reported selling directly to the wholesaler. This means that 14 companies are using agents to sell to wholesalers. This reinforces the observation that a wholesaler alone won't necessarily move the product. An agent will make the sales calls in support of the manufacturer and the wholesaler and is a critical link in this sales channel.

With respect to using the Internet to sell or market products, almost every company reported that it was either online already or was developing a Web site. There is a growing awareness that this will be important in the future, particularly in business-to-business transactions.

Table 5.2.7. Product marketing methods

Marketing methods	No of Respondents*	(%)
Commissioned agent	23	49
Direct to wholesale	15	32
Direct to Retailer	12	26
Internet	15	32
Other (direct to OEMs or through own retail outlet)	11	23
No answer	2	4

* Respondents identified as many as applicable

Question 8: What are your overall raw material requirements at the present time?

The 47 companies interviewed require a total of 74 million fbm of hardwood lumber, 54 million fbm of softwood lumber, and 1.14 million sheets of board and panel products annually. In addition, they need 20 million fbm of Eastern white pine and 2.8 million fbm of cedar. Table 5.2.8. provides a summary of these wood requirements. Details of these wood requirements are part of the data in Appendix G. The New Brunswick value-added manufacturers need just about every grade of every species grown in Eastern North America, and in some cases, well beyond this boundary, to operate their businesses. Note: the estimates exclude Irving Specialty Products Ltd., as the company is so large it would skew the results.

The value-added manufacturers need every species of hardwood native to Northeastern North America to varying degrees. The most popular native hardwood species is hard maple due to its well-known toughness and associated performance characteristics. This species is well-known internationally and has benefited from the recognition factor of being known as Canadian maple thanks to the maple leaf on the Canadian flag and maple syrup, readily identified with Canada. Yellow birch is next on the list and in the value-added business, when people refer to birch, it is this species rather than white birch to which they are referring. Many companies, particularly in the flooring, cabinetry and furniture businesses need red oak which has to be imported as there are not commercial supplies of oak logs available in New Brunswick. Other hardwood species such as red maple and white birch are used sparingly by New Brunswick value-added companies, but there are some important applications such as curly red maple for instrument blanks.

On the softwood side, the standard SPF (black, red or white spruce-jack pine-balsam fir) is used by companies in many remanufactured and in some engineered wood products operations. As soon as one required strength for products such as engineered joists, which combine solid wood and OSB cores, then SPF cannot be used and pure black spruce is needed. The two most important softwood species for value-added manufacturing are by far Eastern white pine and cedar. Both are reported separately by New Brunswick DNRE in the Timber Utilization Survey. Pine is used for production of appearance products while cedar is

used in remanufactured operations, and to some extent, for appearance products as well. Almost all of the value-added companies using cedar have primary sawmill capability, while the pine companies tend to use lumber produced outside the company (or in separate divisions). There is also a strong demand for red pine poles for producing pressure-treated utility poles.

Poplar is also being used for producing fencing and laths, and for OSB, particleboard or flakeboard. Almost every company using poplar has primary sawmill capability.

Table 5.2.8. Summary of annual wood requirements

Item	Annual Volume
Softwood Lumber (fbm)	54,438,000
Eastern White Pine (fbm)	20,330,000
Cedar (m^3)	2,792,000
Hardwood Lumber (fbm)	73,757,000
Poplar (fbm)	5,000
Panels (4'x8' sheets)	1,140,550
Cabinet Doors	75,000
Softwood Sawlogs (m3)	776,416
Hardwood Sawlogs (m3)	654,920

Panel products include MDF, OSB, particleboard (Melamine), plywood (hardwood, softwood, pine), veneer and HDF. These products are generally used in the production of appearance products such as furniture, RTA furniture, cabinetry, specialty products and some custom millwork.

This question was not very easily answered by many respondents because in many cases, there is a relatively casual information system used to track such data. Many had to look at order forms and invoices from the previous year, which was time consuming and sometimes inaccurate, as the completeness of the information was suspect. Another problem was that different companies used different units of measure, i.e. board feet or cubic metres or cords. Finally, companies with primary sawmill capabilities described roundwood and finished lumber interchangeably. These companies are almost all sub-licensees and they simply ended up deferring to the latest (1998) New Brunswick DNRE Timber Utilization Survey for the information. For these reasons, gathering information on this question was very challenging.

The non-integrated (primary sawmill capability) companies require for the most part kiln-dried (KD) lumber, and for the most part, they tend to need hardwood or pine. They need KD lumber since they do not have kilns on site. The companies with primary sawmill capabilities tend to have kiln capability, but in many cases, they also need to purchase lumber, both green and dry, to make up annual requirements. This is especially true for companies which need

species which are not plentiful in New Brunswick such as pine, hard maple, oaks, cherry and ash.

Questions 9 and 10: Where do you get your wood from today (tenure and geographic)?

Value-added companies are buying as much wood as possible from New Brunswick sources, although 13% (Table 5.2.9) claim to buy no raw material at all from this province. Anecdotal and documentary evidence show that considerable volumes of roundwood are coming from Nova Scotia for processing here and that a lot of this wood is ending up not at New Brunswick value-added companies, but rather on the open market where it is often exported to the US as finished lumber.

Again on the anecdotal level, there is ample evidence that some New Brunswick hardwood (both logs and lumber - volumes unknown, but believed to be significant) is purchased by Quebec buyers, is graded and kiln-dried there, then is brought back to New Brunswick as raw material for small value-added manufacturers. On the surface, this seems detrimental to our industry, with incremental economic activity that could take place in New Brunswick being transferred to another jurisdiction and New Brunswick companies being made less competitive by higher transportation costs and extra middlemen.

From another perspective, of course, it can be argued that these Quebec wholesalers and brokers are at least willing to supply small (often Less Than Load - LTL) quantities of graded, kiln-dried hardwood on reasonable credit terms to small New Brunswick companies and that without them, many value-added manufacturers in this province would have no access to this hardwood at all.

The situation is quite different for larger value-added companies, particularly those with primary sawmilling capabilities. Some of these companies use brokers to buy logs but many have their own procurement capabilities. Wood from Crown allocations and sub-allocations does not usually go directly to value-added manufacturers without primary breakdown capability. In two cases, sub-license allocations have been awarded to value-added manufacturers who do not possess sawmill facilities, on the proviso that partnerships be developed with appropriate sawmills. While the results in these two cases may be inconclusive, this is an aspect of the wood supply equation that may hold promise and needs thorough evaluation. Finally, private woodlots are an important source of both hardwood and softwood for value-added manufacturers and here again, partnerships with appropriate sawmills are often necessary. Further development of these three-way relationships may hold promise as well.

Table 5.2.9. Sources of wood (geographic)

Source of Wood (Geographic)	No. of Respondents*	(%)
New Brunswick	41	87
Nova Scotia and PEI	17	36
Quebec	17	36
Maine	15	32
Other (hardwood and pine from New England and Ontario)	12	26
No answer	1	2

* Respondents identified as many as applicable

Table 5.2.10. Source of wood (tenure)

Source of Wood (Tenure)	No. of Respondents-*	(%)
Crown	27	57
Industrial Freehold	18	38
Private Woodlots	31	66
Other (mostly federal lands)	16	34
No answer	8	17

* Respondents identified as many as applicable

Question 11: What do you think your wood requirements will be in five years?

Almost every company interviewed said that additional wood will be required in the future, with some expecting their wood requirements to double over the coming five years. On average, a 23% increase in raw material demand is projected for the next five years by New Brunswick value-added manufacturers. Table 5.2.11 provides a summary of anticipated requirements, while Appendix G contains the details by species, product and grade.

For companies that have a Crown allocation and operate a primary sawmill, there is a recognition of both market opportunities and wood supply constraints. These companies tend to feel that there will not be much chance to get more roundwood supplies as wood markets are tight now, and therefore, the best hope is to improve yields from existing operations and to integrate further into even more value-added products, or up the curve more into higher value products beyond what is now being produced. The younger, smaller companies are more bullish regarding market opportunities and indicate fairly robust market opportunities. Many of these companies indicate that they can use much more wood in the future, but do express some concern over availability and price. Companies which need more hard maple are most concerned, while those in the panel-processing business feel that supplies shouldn't be a problem. Anyone using white pine expressed concern with availability for the future.

Table 5.2.11. Summary of anticipated wood requirements in five years

Item	Current Annual Volume	Future Annual Volume	Per cent Increase
Softwood Lumber (fbm)	54,438,000	70,565,000	30
Eastern White Pine (fbm)	20,330,000	25,015,000	23
Cedar (fbm)	2,792,000	3,380,000	21
Hardwood Lumber (fbm)	73,757,000	86,950,250	18
Poplar (fbm)	400,800	400,800	0
Panels (4'x8' sheets)	1,140,550	1,140,550	0
Cabinet Doors	75,000	75,000	0
Softwood Sawlogs (m3)	776,416	823,614	6
Hardwood Sawlogs (m3)	654,920	1,438,530	120

Question 12: What are your total annual wood costs?

The question of annual wood costs is considered sensitive by many. As such, respondents were asked to express wood costs (delivered to mill) into one of several categories (see Table 5.2.12). It was also noted that many respondents really didn't know this cost with any degree of accuracy, but rather they were readily able to provide an estimate of costs.

Although there was very little commentary offered regarding this subject, some commented that costs for hardwood have been very high in the last few years and this has put pressure on profit margins.

Table 5.2.12. Annual wood costs.

Annual Wood Costs Category	No of Respondents	(%)
Under $500,000	16	34
$500,000 to $1 million	8	17
$1 to $5 million	13	28
$5 to $25 million	5	10.6
Over $25 million	2	4.2
No Answer	3	6.4
Total	47	100

Question 13: Can you use fingerjoint stock, waste, etc.; that is, do you see any opportunities to use /benefit from some other plant's waste stream?

For most of the value-added companies, the types of products being manufactured do not lend themselves well to using waste as an input. As such, only 23% are using other plants' waste stream (see Table 5.2.13). Another 6% are looking into options and 15% said they might

investigate options in the future. There are two companies, one softwood remanufacturer and one hardwood appearance product firm whose entire businesses are predicated on the availability of waste or downfall as raw material supply. It is also interesting to note that one company with a Quebec parent company is using the services of Forintek to investigate opportunities to utilize waste in production.

Quite a few of the companies who are using waste today have fingerjointing capability. A major concern expressed about this is the market's unwillingness to pay much of a premium for such end-products, and therefore, it is not profitable to produce fingerjointed stock in many cases. As such, a number of fingerjointing machines remain idle. On the other hand, one company was using its fingerjointing machine to produce material for further processing into edge-glued panels. This has served to create market opportunity where none existed before and this part of the operation is profitable.

Fifty-six per cent of the respondents are not using other firms' waste materials now and have no interest in doing so in the future. One very important observation is that it is very difficult to make high quality finished products out of low quality raw materials. In other words, the waste must be of consistent high quality in order to make decent end products. One needs low value, but high quality materials to start.

Table 5.2.13. Can you use other plants' waste materials?

Response	No. of Respondents	(%)
No	26	56
No - but investigating now	3	6
No - but might investigate	7	15
Yes - and doing it now	11	23
Total	47	100

Questions 14 and 15: Have you ever tried to source material from outside the province? Do you plan to source wood from outside the province in the future?

Almost 90% of the companies have imported wood from outside the province and more than 90% plan to do so in the future (see Table 5.2.14). This is a clear indication of how important outside sources of wood are today and will continue to be in the future. For the companies that are sub-licensees and operate primary sawmills, almost all now draw on outside sources of wood. The exceptions to this are small operators which use fairly specialized species such as poplar, cedar or certain hardwoods (curly red maple, bird's-eye maple). These companies, while not always able to get the wood they need, also haven't had much luck importing logs (cost, availability).

Companies with no primary breakdown capability also tend to import wood to a large extent. The only companies that do not import, tend to be small operators with specialized niche

products. It is becoming nearly impossible to run a value-added wood manufacturing or sawmill business in New Brunswick without importing some wood, and in certain cases, nearly all wood, from outside the province.

Table 5.2.14. Do you import wood?

Answer	Present	Future
Yes	41	42
No	5	3
No Answer	1	2
Total	47	47

It is interesting to note that several companies have tried in the past to import wood (both roundwood and lumber) and have given up because transportation costs have been too high. These companies' profit margins are very sensitive to wood costs, and as fuels costs go up, it becomes ever more difficult to compete. Small producers have experienced difficulties buying less-than-truckload quantities of non-standard colour Melamine made in New Brunswick at Flakeboard. The manufacturer will not sell such volumes direct and the wholesaler will not carry the stock either, thus forcing the buyer to import this material from outside sources.

Question 16: What are your biggest constraints in getting raw material now and how can these be overcome?

Responses to this question illustrate a wide range of problems, many of which reflect not just wood industry issues but rather the small size of companies that make up much of the sector. In some cases it is difficult to identify the point at which a perceived raw material problem in fact becomes a working capital problem, or a problem arising from a lack of knowledge, influence, or management ability. It is clear, however, that getting raw material is a major problem for almost every company in the survey and that a lot of time and energy is spent trying to secure supplies. Several common themes emerged in responses to this question.

Any company with a Crown allocation found that it is becoming increasingly difficult to get the volume of logs to which it is entitled from the licensee and the logs that are available are of an ever poorer quality. The competition for logs is fierce in the open market as well, and unallocated wood from private woodlots tends to go to the highest bidder, making this wood difficult to secure. As well, negotiating supply contracts with the marketing boards is also much more challenging than in the past as the seller can't guarantee price or volume, rendering the contract almost meaningless. This is because the strong demand for exported logs, with ever more aggressive log-buying efforts from the US and Quebec, makes private woodlot suppliers leery of tying up wood at prices below what the spot market will pay, particularly for high quality hardwood logs.

Small hardwood users such as cabinet shops expressed interest in buying New Brunswick hardwood lumber, but said that it is too much hassle to try and find suppliers. Attempts in the past have led to dissatisfaction with quality as the grading system seems weaker for local wood. Most said that it is much easier to buy from a broker who is accustomed to supplying the smaller shop looking for consistent quality and paying the asking price. If the grade is there, they don't lose too much on yield and can justify the cost more readily.

Larger hardwood users tended to have more difficulty finding sufficient volumes of wood than the smaller users. Most were in the market for hard maple and this species is under stress in the region due to extremely high demand. These larger users tended to be more aware of the Crown allocation system and how roundwood markets functioned, and many expressed frustration in trying to get at Crown wood. All had wood procurement strategies that took advantage of every conceivable source of wood in the region, from roundwood to sawn lumber from within and without the province. Many often encountered serious problems with cash flow to purchase wood as required. The receivables tend to be 30 to 45 days, and payables usually 30 days, but for wood (particularly roundwood or locally sawn wood) terms often were immediate or at best 10 days, particularly when markets are hot. This same problem has been felt by smaller hardwood users, but to a lesser extent as they tend to use wholesalers who have more "normal" credit terms.

Small softwood operations, particularly in the re-manufacturing business, said that it is very difficult to get consistent supplies of logs as the Crown allocations are often not met and the private wood is not available. As well, those that use downfall from other mills often find that the supplies can be interrupted for market and other reasons. Larger softwood manufacturers experience many of the same problems and highlight log supplies from private woodlots as being particularly problematic as well.

Cedar users indicated that this species was considered surplus about 10 years ago and was very readily available. The biggest problem was finding cutters to harvest the wood. Today, there is far more demand on the resource, and many are experiencing difficulties meeting demand. A big issue identified for the Crown allocations is that the cedar is not available as a primary harvesting operation in many instances and the crews must go in as a second pass which can be inefficient and costly. Competition for logs is intense, and this is felt all the way through to the remanufactured and appearance product companies.

White pine users all expressed serious concerns about supplies of this species. There are shortages on the stump and the largest pine limits on Crown are controlled by a company which is a very large user of pine internally, and is therefore in competition with its sub-licensees for the same materials. As well, the quality of pine has slipped substantially in recent years. Finally, competitors in other parts of the world, and in the Western US, are using radiata pine from plantations in Chile and other parts of South America which is very competitive due to its rapid growth in those climates.

MDF users indicated that the quality of the sheets constrains operations. They can only use the highest quality sheets from one specific producer in Alberta as this is the only product which will withstand machining and sanding stresses without detriment to production. Other panel users indicated that they can't get LTL supplies of less common colours of Melamine type products due to manufacturer and local wholesaler constraints - they won't break down loads into less than truckload quantities.

See Appendix H for more comments from respondents.

Question 17: What locally produced raw material do you need that you cannot now obtain? What species, grades, dimensions, etc., are most affected?

Absolutely every species and grade utilized by these manufacturers were identified as problematic. This seems surprising at first, but considering the cyclical nature of the markets, and the incredibly strong markets which have persisted for almost all products during the past several years, it is inevitable that some shortfalls would begin to appear. On the other hand, there were nine companies who said there were no constraints at present on obtaining the species they needed.

For hardwood, species at the northern extreme of the range were identified as problematic, such as the oaks, ash, butternut and cherry. This is understandable due to the silvics of the species. Of much more concern, however, is the extreme pressure on hard maple in particular. This species is the most important local tolerant hardwood, particularly for almost every appearance product, and it is in very short supply. Yellow birch is more readily available, but the market hasn't accepted this species to the same extent as hard maple.

For SPF, availability of KD materials for remanufactured operations was problematic. Most of this material is being exported out of the province and manufacturers have long term commitments to customers which they refuse to break. There is virtually no locally produced machine stress rated (MSR) lumber available for the general market in New Brunswick today, despite the fact that much of the local SPF is of equal or greater quality than the imported MSR lumber. High quality black spruce must be imported from Northern Quebec for use in I-joist plants as the local SPF does not have the mechanical strength required for this application. As well, when markets are hot, downfall from SPF sawmills for fingerjointing and other remanufactured operations can be problematic. White pine is increasingly difficult to get and all except one company, which uses cedar logs, indicated major problems with getting sufficient supplies.

With regard to MDF, high quality board is not available from local sources and must be imported from Western Canada. See Appendix H for additional commentary.

Question 18: Where is this raw material going? Why can't you get this wood?

There is quite a bit of overlap between these two questions and the previous question "What are your biggest raw material supply constraints?" In general, almost every species and product being sought after by value-added manufacturers is considered to be in short supply by someone. The private woodlot wood is considered to be the most difficult to get due to severe market competition. Most feel that the wood they can't get is going to the US for the most part and there is a strong feeling that there is a lot of illegal harvesting which is contributing to the problem.

With respect to hardwood, two issues were identified: Crown hardwood is being controlled by a few large players and it has made getting the sawn lumber necessary for value-added operations very hard to get. The only way to get this wood is to purchase it on the open market which is expensive. The second issue is that the hardwood being processed at the smaller sawmills is being sold "mill run" to companies such as Maritime Lumber which in turn dry it and sell it to wholesalers from the US and Quebec. This wood is unavailable to New Brunswick manufacturers because the arrangements between brokers and sawmillers are very strong and difficult to penetrate. Therefore, this wood may in fact be graded and dried in New Brunswick, then shipped to Quebec where it is then resold to New Brunswick manufacturers for use in value-added operations. The rest of the New Brunswick hardwood is private woodlot wood which is being exported as logs to US customers which precludes New Brunswick manufacturers from access to this resource.

With respect to SPF, wood which might be used for remanufactured operations is being sold as dimension lumber or studs to US customers, although as markets weaken, more of this material might be available in the future.

Question 19: Have you had any shutdowns or "bottlenecks" due to raw material shortages in the last 18 months?

Despite the fact that almost all companies said they had raw material shortages in the recent past, and that it was increasingly difficult to source raw materials, only 30% of respondents indicated that they had shutdowns or bottlenecks due to raw material shortages in the last 18 months. Many companies which did experience these problems had the difficulties as a result of insufficient cash flow to purchase the materials when they were needed and available. Again, problems with financing impacted on raw materials supplies.

Hardwood companies, large and small, were having the most difficulties getting hard maple, as indicated in previous questions, and this species has been responsible for most of the difficulties for small and large producers. Almost all of these companies also indicated that raw material shortages (particularly hard maple) prevented them from expanding as market demand has been very strong for finished products in general.

Many of the companies of all types with all species have had to contend with shortfalls from time to time. Most have been able to re-arrange production, shifting to an alternate product when raw materials were unavailable. This flexibility in production planning has allowed companies to overcome raw material shortfalls in most cases. See Appendix H for specific comments from respondents.

Table 5.2.15. Shutdowns or bottlenecks in the last 18 months?

Answer	No. of Respondents	(%)
Yes	15	30
No	30	60
No Answer	2	10
Total	47	100

Question 20. What is the dollar impact of this raw material shortage on your business?

This question proved to be challenging for many of the people interviewed who responded Yes to Question 19. Most had never thought about this in lost revenue terms before. Sources of lost revenue include immediate lost sales, in some cases rework necessitated by not having materials available, and in some cases it represented not having the confidence to go after an order because of concerns regarding the ability to find the wood to fill the order. There were 15 companies who said they lost time due to wood shortages, but only 11 provided an estimate of what it cost them. Table 5.2.16. indicates that there was a total of $5.265 million of impact due to wood shortages in the value-added wood business in New Brunswick during the last 18 months.

The bulk of the impact again could be attributed to problems with hardwood supply, and again, most acutely felt in lack of hard maple supplies. The largest impact noted was by a hard maple flooring manufacturer which estimated that $3 million in lost business was attributable to unreliable supplies of hard maple. The company had to turn down several orders for commercial flooring, and turn down a deal with a new wholesaler that may have opened up substantial business opportunities in new overseas markets. Finally, the company has put expansion plans on hold for the last two years due to unreliable supplies of hard maple.

Table 5.2.16. Dollar impact of raw material shortages in the last 18 months

Company	Impact ($)	Company	Impact ($)
1	$20,000	7	$3,000,000
2	$80,000	8	$250,000
3	$50,000	9	$500,000
4	$20,000	10	$40,000
5	$50,000	11	$5,000
6	$1,250,000	Total	$5,265,000

Question 21 and 22: How much would your value-added product sales grow if raw material were available? How many jobs would be created?

Sixteen out of 47 companies provided an estimate of how much sales could grow if all the raw material needed was available. Unfortunately, it is impossible to put a number on the precise amount of revenue this represents because companies were only asked to indicate the category increase in annual sales. We can make an estimate of how much more these companies could sell, however, based on average sales by category with the percentage increase by category. This yields a rough estimate of approximately $110 million in incremental sales if the wood were available. Table 5.2.17. shows the estimated percentage increase in sales by category of growth.

Table 5.2.17. Percentage increase in sales if raw materials were available.

Increase in Sales (%)	No. of Companies
Up to 10%	1
11-25%	6
26-50%	3
51-100%	3
Over 100%	3
Total	16

When asked how many jobs would be created from the increased availability of wood, five of these companies didn't offer any estimate of employment impact. One of them said there was no additional employment, just better utilization. In total, the companies that did answer estimated that 202 jobs would be created from the additional wood. When combining the estimate of additional sales of $110 million with the 202 jobs, it works out to about $544,000 of annual sales per job. It must be noted, however, that empirical studies by the Province and Canada have consistently demonstrated a ratio of 1 job per $100,000 of annual sales. The lower ratio may be explained in part by the fact that there would not need to be very much new investment in machinery and equipment as most of this work would be in additional shifts on existing equipment. It also may be at least in part explained by the fact that most of those interviewed provided very rough, seat of the pants estimates of shortages, sales and impacts. Table 5.2.18. shows the reported estimate of jobs which could be created by their company.

Table 5.2.18. Number of new jobs created if raw materials were available

Company	No. of new employees
1	35
2	15
3	30
4	34
5	10

Company	No. of new employees
6	70
7	4
8	4
9	0
Total	202

Again, the bulk of the new opportunities are attributable to hardwood appearance product manufacturers. These companies have enjoyed strong markets for an extended period of time, and expect to continue to grow into the future providing raw materials supplies can keep pace with demand. One of the largest integrated companies in the province has experienced excellent growth in adding value to SPF lumber, particularly in high quality but low value materials. The company is making picnic tables, work benches, planters and other similar products which improves profitability for SPF. As well, another large integrated remanufacturing company is moving products further up the value-added curve by laminating fingerjointed stock and making new products from the resulting panels. There are tremendous growth opportunities in such activities.

Question 23: How are the recent changes in Crown royalty rates likely to affect raw material supplies for you?

The recent changes to the royalty rates were announced in the Spring 2000 budget, and were finalized by negotiation between the licensees, sub-licensees and the Province. See Appendix I for the new schedule. The main difference in the rates was that they increased from 70% of fair market value of stumpage on private land to 76%. Not only did the mill rate increase, but so did the base since most stumpage prices have increased steadily during the re-evaluation period.

The changes to the royalty rates are likely to affect raw material supplies for 40% of the respondents in total. On the surface, this may seem to be a relatively low level of impact. However, the high percentage who responded "Not at all" (29%) and "Don't Know" (31%) indicates that most of these companies are not sub-licensees, and therefore do not have access to Crown wood directly. Understandably, they are well removed from any pricing impacts. If price rises, a person buying lumber from a broker is unable to determine to what extent the increase is attributable to royalty increases and to what extent it is the result of other factors. It is interesting to note, however, that 16 companies in the survey are sub-licensees and 18 companies indicated some impact from the increases in royalty rates. These companies were for the most part one and the same. A summary of the responses by category is presented in Table 5.2.19. See Appendix H for specific comments.

Table 5.2.19. Impact of recent changes to Crown royalty rates.

Amount of Impact	No. of Respondents	(%)
Not at all	13	28.9%
Small impact	7	15.6%
Medium Impact	9	20.0%
Large impact	2	4.4%
Don't Know	14	31.1%
No Answer	2	N/A
Total	47	100%

One common theme amongst respondents is that, regardless of species, the increases came at a time when the market for SPF started to fall and therefore timing was extremely poor. For those who weren't hit with declining markets, such as hardwood users, the increase is very difficult to pass along to the customer as margins are very tight on the low grade materials and contracts are won and lost on pennies per m^3, while increases were of the magnitude of 40 cents per m^3. The SPF users indicated that they had to have the Crown wood at any cost due to the tightness of supply. Finally, almost everyone commented on the fact that these increases came at a time while neighbouring jurisdictions, particularly Quebec, held rates steady.

Question 24: Are the new Crown royalty rates fair?

Again, nearly half the people responded "Don't Know" which is not surprising considering how far removed they are from the primary resource. Of those who did offer an opinion, however, more than half felt the rates are fair. Others asked what was meant by fair, suggesting that the rates were fairer to some than others. The results of the question are presented in Table 5.2.20.

Table 5.2.20. Are the Crown royalty rates fair?

Answer	No.	(%)
Yes	13	28
No	10	21
Don't know	22	47
No Answer	2	4
Total	47	100

The respondents who rendered an opinion included not only the sub-licensees, but also some non-subs as well. Overall, there was a feeling that hardwood prices are fair, and SPF are high. Many of the respondents feel that for SPF, the rates including overhead and silviculture charges are higher than private stumpage rates, particularly since not much silviculture work is being done on private woodlots. A fairly important issue for hardwood and cedar users is the fact that the overall Crown rates include provision for silviculture, but that very little forest

management for hardwood or cedar is being undertaken. This is viewed as unfair by these companies. See Appendix H for specific comments.

Question 25: Are specialty grades royalties fairly priced in relation to lower grades?

The majority of respondents (62%) did not have enough knowledge to answer the question. Of those who did, the majority felt that the specialty grades were not fairly priced in relationship to other grades. Most seemed to feel they were too low and did not reflect differences in market pricing for the end products.

The pine users specifically said that there is no differentiation for grade which is making the royalty rates unfair for this species. As well, one large hardwood user felt that the price differential for high quality hardwood logs is not proportional to the value of end product prices, and that the rate is low. Another large hardwood company said that there is no relationship to the end market pricing for tolerant hardwood species. For example, hard maple and yellow birch have the same royalty rates, yet the maple logs are much higher valued than the birch on the open market.

Table 5.2.21. Are specialty grades royalties fairly priced in relation to lower grades?

Answer	No.	(%)
Yes	7	15
No	11	23
Don't know	29	62
Total	47	100

Question 26: Are there any underutilized species in New Brunswick now - i.e. species available but not used or used for lower value products?

Just under 80% of those interviewed rendered an opinion on this subject (see Table 5.2.22). More than half of those who had an opinion felt that there are no underutilized species in the province today. The 16 people who did feel that there are opportunities, identified poplar and to a lesser extent hemlock and tamarack as being underutilized and that the poplar represents the best opportunity for value-added manufacturing since most feel that it is plentiful and that decent sawlog size materials could be available. End products could be paint-grade mouldings, drawer inserts and paint-grade furniture stock.

Most of the comments regarding poplar focused on the fact that so much of this species is being chipped and used for OSB. Many think this could represent a high proportion of sawable wood, but that it will be very difficult to divert material to the sawmills due to the strong buying practices of the large poplar users and the amount of poplar which is allocated to such users.

Many of the softwood companies felt that larch (tamarack) and hemlock represent good opportunities but that very few people know how to saw or otherwise handle these species now. See Appendix H for specific comments.

Table 5.2.22. Underutilized species in NB now?

Answer	No.	(%)
Yes	16	34
No	21	45
Don't know	7	15
No answer	3	6
Total	47	100

Question 27: Does any opportunity exist for underutilized species in the raw material mix in your business?

It is interesting to note that 60% of respondents indicated that there is no place in their business for underutilized species. This is not surprising, given the nature of the value-added businesses. Most have a very well established line of products made from species which their market has long accepted. They will not feel very comfortable messing with "success". In fact, it might have been reasonable to expect an even higher proportion to have said "No" to this question.

On the other hand, 34% said "Yes", which implies that they recognize ways of building their business through diversification of species, and perhaps even new products which are not now being made from existing species. It is also possible that some are getting desperate for raw material so they are more willing to look at other options than they may have been in the past. In fact, most of the respondents who said "No" indicated that circumstances might force them to look at other species due to shortages (most acute is hard maple and cedar now). They are already beginning to experiment with alternates like soft maple and tamarack (flooring). It will be important to provide wood machining characteristics and product testing support as wood shortages become more acute.

Table 5.2.23. Does any opportunity exist for underutilized species in your business?

Answer	No.	(%)
Yes	16	34
No	28	60
Don't know	1	2
No answer	2	4
Total	47	100

Question 28: Are there species that grow in New Brunswick which you can't get?

Those who responded were split evenly between those who said there are species which grow in New Brunswick which they can't get and those that said there aren't (see Table 5.2.24). The bulk of the problem seems to be with the hardwood species, especially hard maple. As well, all but one company which uses cedar said that it is getting very difficult to get this species and all are concerned about the lack of cedar silviculture being practised.

Within the softwood species, pine is in very short supply. There is a lot of concern being expressed with the fact that most of the best pine land is now owned or controlled by some of the larger companies who are using the pine for their own purposes which is making it ever more difficult to procure this species, especially in KD form. One company said that they can't get black spruce, but rather only SPF. This is a big issue for structural use in engineered wood products, and it should raise a flag for anyone looking to manufacture products such as wood I-beams.

Table 5.2.24. Are there species that grow in New Brunswick which you can't get?

Answer	No.	(%)
Yes	20	42
No	21	45
Don't know	1	2
No answer	5	11
Total	47	100

Question 29: What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between the primary and value-added sectors?

This question evoked a lot of discussion in almost every interview, and there were a number of interesting ideas which hold promise for improving access to quality lumber for the value-added manufacturer. It was clear that "primary" referred to the primary sawmill which produces lumber required for value-added processing-the sawmill. It was interesting to note, however, that several of the people who process panel products considered particle board and OSB producers as "primary" manufacturers.

Some companies were offered as examples of integration or supply partnerships between primary and value-added, i.e. Shermag and Groupe Savoie, but both these companies operate their own primary sawmill and integrate much further into value-added products in their own operations. This is much different than trying to develop long-term supply relationships between separate sawmills and value-added companies.

There were some differences as well as similarities in responses here between the various types of companies which participated in the survey. In general, the sub-licensees had a very good understanding of the issue, and tended to feel that there already is a well developed

relationship between the sawmills and the value added companies. They offer several examples of this today where a company with Crown allocation will sell its logs to a sawmill which will in turn sell lumber back to the company at favourable rates. This doesn't always work out, however, as the value-added company may have trouble getting what it needs in return for the logs, since in many cases, the log transaction is a "paper" transaction only. The logs are often produced either by the sawmill's logging crews, or by the licensee, and therefore, the value-added company must take what it gets. Another example of co-operation where a sawmill has met the intent of the 1997 DNRE value-added policy was offered. A sawmill produces SPF for a truss company (its largest customer) and pine for a panel and furniture component company rather than invest in value-added production internally.

Companies with no allocation, however, tended to indicate that there was a lot of opportunity to improve co-operation between sawmills and value-added companies. These companies said that a direct allocation of Crown wood to the value-added company would improve integration between these sectors as the sawmills would then be forced to produce lumber for value-added companies. At present, it is difficult to buy lumber form New Brunswick mills due to the tendency of hardwood mills to sell mill run to brokers, as mentioned previously. Another problem which constrains closer integration is the need to pay cash for lumber when markets are hot, and in the absence of cash, the wood goes elsewhere..

In all cases, there is a need to communicate better between the sawmillers and the value-added manufacturers. There are many who feel that a lot of opportunity is lost just because the various actors really don't understand the requirements (specifications, delivery schedules, financial aspects). The companies in each sector could enter into formalized supply contracts, or cross investments from one company into the other (with outright purchase as the extreme) can serve to build these relationships. This has, and will, only happen if it makes sense for both parties, and win-win arrangements are developed. All parties must be willing to pay fair prices and seek reasonable terms if it is going to work. There is a need to link together with trust and cash flow. See Appendix H for specific comments.

Question 30: What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between the private woodlot and value-added sectors?

The question of developing raw material supply partnerships between value-added manufacturers and private woodlot owners evoked some very interesting comments. In a sense, this suggests on the surface that the sawmill, which is the critical component in the transformation of logs to lumber, be by-passed. Instead, the end user of the sawn lumber buys from the producer of the raw logs, and he gets the wood sawn as he sees fit. There are several examples of this taking place today which were revealed in the interviews. In most cases, however, the value-added manufacturer is also operating a sawmill and is buying from private woodlots, either through the marketing board or directly from the owner.

Although almost everyone felt that establishing this kind of linkage makes sense, most felt that it will not be an easy task to make any kind of long term supply arrangements with woodlot owners. The biggest constraint is that much of this wood changes hands on a cash basis and it is sold almost invariably to the highest bidder on a spot market type of basis. As such, getting annual commitments for volume and price is viewed as challenging, at best and nearly impossible, at worst. This again illustrates the need for access to ready cash if value-added companies are to participate more fully in the New Brunswick wood market.

A major issue pointed out by respondents in all aspects of the business is that the Marketing Boards are viewed as less effective in delivering wood than in the past, due primarily to changes in the Crown Lands Act of 1992 which alleviated the need for licensees to negotiate wood supply contracts directly with the Boards as entities. In a closely related issue, many said that there is no control over where private wood comes from, and where it goes, so that the opportunity for wood theft and non-payment of marketing board levies exists. Until value-added companies can negotiate with representatives of private woodlot owners who can guarantee price and delivery (volume, schedule), it will be very difficult for closer co-operation to develop.

Another important issue to be addressed is again developing better lines of communications between the woodlot and value-added sectors. The buyers need to communicate specifications and other requirements clearly and the sellers need to know that the market exists, and that they will be treated fairly when selling. Again, the concept of convening a summit may hold merit to help develop better communication.

See Appendix H for comments from the interviews; for more insight into how the private woodlot sector operates, see Section Seven - Woodlot Sector.

Question 31: What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between any other combination of players?

There were very few opportunities identified in response to this question. One company suggested that wood brokers could be approached to take a more active role in directing New Brunswick wood to value-added operations. Another felt that New Brunswick DNRE could make some move to force processing in New Brunswick - perhaps restrict exports of roundwood, or ensure that Crown wood was at least offered to the New Brunswick value-added companies first, thus forcing processing in New Brunswick. Finally, one respondent who runs a small hardwood and cedar sawmill/remanufacturing operation suggested allocating some Crown land to the individual - 40-hectare blocks and make the company be responsible for all aspects of the operation. As a condition of the allocation, force the sale of the wood to New Brunswick processing facilities, or sawmills linked to a value-added operation, at fair market value. If the company can't operate the block, then it loses the right to operate another block for a long time into the future.

Question 32: Does the Wood Products Group have a role to play in developing raw material supply partnerships between any combination of players?

This question evoked a lot of positive discussion and suggests that there is a role for the Wood Products Group to play in developing raw material supply partnerships between members and suppliers. Even those who initially responded that they didn't think that there was a role for the Wood Products Group often ended up by suggesting some role that the Group could play.

Respondents from all types of companies suggested that the Wood Products Group could form some sort of a buyer group (similar to the AWARD group for building supply companies). The concept would be to negotiate "standing offer" type buying arrangements with suppliers where any group member, by virtue of membership, would be able to purchase goods on favourable terms (discount, rebate, etc.). The secret is to be sure that the seller wants to deal with the buyer group because it doesn't interfere in individual transactions but instead adds value to the process by introducing buyers to sellers, and fosters long-term, profitable business relationships for everyone concerned.

Again, all types of companies suggested that the Wood Products Group could negotiate on behalf of all value-added companies some form of access agreement to Crown allocation which would insure that the companies would at least enjoy the right of first refusal on all New Brunswick Crown wood which could be processed into value-added products. One caution is if the Wood Products Group becomes a supplier of services, or a watchdog re: services to members, be careful about becoming an arm of DNRE. The Wood Products Group needs to retain a strong measure of independence, representing businesses to government rather than representing government to business.

A broad cross section of companies feel that at minimum, the Wood Products Group needs to be a broker of information between buyers and sellers of wood. Information regarding needs of buyers and availability of supplies is lacking at a broad level, and this is a role that needs to be fulfilled.

Another role which many of the small and medium size firms identified for the Wood Products Group is to work to alleviate the extreme cash flow problems many associate with wood procurement, particularly roundwood and locally produced lumber. If a blanket credit facility (or wood bank) could be developed, then many companies could more easily arrange to acquire raw materials under the short payment terms required by these types of sellers.

A couple of sub-licensees with remanufacturing operations indicated that there is no role for the Wood Products Group to play. They suggest that if the Wood Products Group tries to interfere in the free market, that it will only create another level of bureaucracy which will add no value to the process. These companies feel that things are working fine right now, and there is no role for collective purchasing of anything. As larger companies, they have access to internal resources (and funds) for procuring raw materials.

One message which is clear, however, is that the Wood Products Group must be cautious not to enter into business activities which would be viewed as being in competition with its own members. For example, the Wood Products Group should not purchase wood directly, or in any manner take possession of wood itself. Instead, it should serve to represent business interests and facilitate transactions.

See Appendix H for specific comments from respondents.

Question 33: What is the likely impact of Native logging on the sector?

In 1997, the Province re-allocated 5% of the total Crown AAC to Native bands. That meant that licensees and sub-licensees had their AAC reduced by 5% to make way for the native allocation. While this represented a major constraint to the companies (and was viewed as a bitter pill to swallow by most), it represents a major opportunity for the bands, which, if handled correctly, could create lasting wealth for generations to come.

This question evoked a wide range of responses from "no impact" through to strong negative opinions. In fact, 36% of respondents said there was no effect, or they had no idea if there were any affect. For those who had an opinion, however, two main themes emerged: native logging has served to make Crown wood more expensive because the natives harvest, pay the royalties and then sell to the highest bidder. There is strong suspicion that some of this wood is being exported rather than being sold to a processor in New Brunswick, but it is hard to prove. The second theme is that most feel there is not a level playing field between the natives and non-native harvesting operations. This means that most feel these operators are less diligent when following the harvesting operational guidelines (stream crossings, oil spills, adhering to cut blocks, etc.) which all who mentioned this found very offensive.

On a much more positive note, however, is the fact that many view Native logging as an opportunity to procure some Crown wood for value-added companies if they can figure out a way to establish workable supply contracts. In many respects, this wood flows through the market much like private wood and is therefore subject to many of the same constraints when trying to establish contracts. See Appendix H for specific comments.

Question 34: What impact will forest certification have on your wood supply?

Only 15% of respondents said that certification will have no impact on wood supply, and 34% said they really didn't know what effect it could have (see Table 5.2.25). In other words, half those questioned felt there would be no impact, or they really didn't know. On the other hand, 44% said they felt it could be a problem, or that certification would have a major impact on wood supply. These responses suggest that there is not a high degree of awareness of the issue.

A question which should have been included in the survey is: "Have any of your customers asked for certified products yet?" It is interesting to note that only three companies said that it will have a major impact, and each one of these large companies has had customers insist on certification, now. One is a softwood remanufacturer, the second is an integrated softwood and hardwood sawmill through to appearance product company and the third is a pine appearance product manufacturer.

The biggest players in the North American and UK building supply field (Home Depot, Lowe's, B&Q) all have policies governing this subject and they simply will not accept delivery of uncertified wood products after a certain date (mostly within two years). Given that oversight in survey design, the interviewer asked the question of participants and recorded the answers separately. It is also interesting to note that the supply of certified "open market" wood is very limited in this region and it is expected that prices for this material will rise substantially in the coming months and years.

The small-sized companies producing value-added products are less aware of this issue. Many who buy their wood through a broker or wholesaler, wonder how they could be expected to verify the origin of the lumber.

Those who demonstrated awareness of the issue said that the consumer market pays no premium for certified wood products. Until that happens, few express interest in becoming certified.

Table 5.2.25 . What impact will forest certification have on your wood supply?

Response	**No. of Respondents**	**(%)**
None	7	15
Could be a problem	18	38
Major impact	3	6
Don't know	16	34
No answer	3	6
Total	47	100

Question 35: Are you considering becoming chain of custody certified?

Only 32% of the respondents answered "Yes" or "Maybe" to this question (see Table 5.2.26). This would seem on the surface to be a very low response rate given the potential impact this issue could have on the ability for any company to compete for market share in the future. However, only 17% responded "No". Some 40% responded "Don't Know" and this uncertainty stemmed from the fact that hardly anyone has been asked for this by a customer yet. When customers start to ask, companies will become interested in this issue.

The companies engaged in manufacturing appearance products with no link to the resource (i.e. they buy all their wood and panels from a wholesaler) tended to answer "Don't Know", which is not surprising as this has been viewed as a forestry rather than a wood products issue so far. On the other hand, those closest to the resource, or selling to the big box stores, are looking more closely at the issue and will be the first to move for chain of custody certification.

It is essential that the Wood Products Group and government remain diligent in their vigilance on this issue, as it could serve to have the same type of market limiting effect as the Softwood Lumber countervail, the Pinewood nematode and potentially the European bark beetle in Nova Scotia. The respondents are looking to both organizations (and to the NBFPA and MLB) for leadership, to provide information. There was also some suggestion that blanket certification might be sought for all Crown and freehold lands which would create some supply of certified lumber for New Brunswick value-added companies. See Appendix H for specific comments.

Table 5.2.26. Are you considering becoming chain of custody certified?

Response	No. of Respondents	(%)
Yes	5	11
No	8	17
Maybe	10	21
Don't know	19	40
No answer	5	11
Total	47	100

Question 36: General Comments and Anecdotes.

The last question asked was: "Do you have any further comments for the Wood Products Group?" The responses were recorded under this general heading. As well, anytime an respondent went off on a relevant tangent, the comments were recorded here.

A large number of respondents feel that there is a need to put a stop to wood theft in the province. Because there is no need to be able to prove where a load of wood came from, then it is very hard to police the illegal flow of wood through and out of the province. The NBFPA has a working committee looking into wood theft and how to control this problem. The Wood Products Group should support initiatives to stem the illegal flow of wood form New Brunswick's forests.

Many companies in the hardwood products and cedar business have expressed serious concerns regarding the lack of forest management geared to these species. In the case of cedar, there is concern that the current harvesting operations represent nothing more than mining, and that when the last mature trees are cut within the next five to 10 years, the

resource will be exhausted. With hardwood, concerns with converting stands to softwood following harvest were expressed.

A long-time manufacturer of value-added products said that the major challenge is to reorganize the industry in the Maritimes to remain competitive. The sawmills must be able to position themselves better. Production costs are too high and the sawmill has to be cost effective. It must make a product to the specification of the manufacturer. The manufacturing side can't subsidize the sawmill and won't because they will buy wood elsewhere. It is good for the sawmill to concentrate on the products they do well and let companies who do the remanufacturing into higher-end products well do this, particularly with sawmill shorts or waste.

One medium size integrated hardwood operator said that the rejects they receive from one private woodlot export contractor are the best logs the company receives from any source. Our best logs are being exported or consumed internally by the licensees.

See Appendix H for specific comments from the respondents.

Section Six: Research Results - Interviews with Crown Licensees

6.1 Background

There are seven companies which have been granted 10 licenses under the New Brunswick Crown Lands and Forests Act, effective April 1, 1982. The licenses convey the right to harvest timber for use in New Brunswick processing facilities. In exchange for that right, the licensee has to enter into a forest management agreement with the Province. This agreement sets out the responsibilities of the Minister of Natural Resources and Energy and the licensee for the management and use of Crown lands by the licensee and sub-licensees. The licensees is required to submit an industrial plan (10 year), a management plan (25 year, revised every 5 years) and an operating plan (annual). The annual operating plan identifies all of the wood to be used by the company and the sub-licensees. The sub-licensee is granted access to Crown timber through the License. Each licensee is informed by the DNRE of its wood obligations to all sub-licensees, and as a condition of access to the Crown, it must meet those obligations.

The licensees are large integrated forest product companies. Eight licenses are allocated to pulp and paper mills, one is to a sawmill and one is to an OSB plant. In the case of the OSB plant, Weyerhauser, the interview was conducted as part of the Wood Products Group member company interviews, given that the company is a member of the Group and it is a supplier of product to some value-added manufacturers in New Brunswick. The Juniper license had just been acquired by Nexfor (Fraser Papers) and as such, the company could not participate in the interviews. Therefore, the balance companies were interviewed, focusing mainly on woodlands operations and the relationship with the sub-licensees.

6.2 Results of the Interviews

The purpose of interviewing the licensees was to determine if, from their unique perspective of being charged with managing nearly 50 per cent of the productive forest land in the province, they had any insights on how to better meet the wood supply requirements of value-added manufacturers in the future.

Question 1. Are you a member of the following organizations?

Each of the licensees are members of the New Brunswick Forest Products Association. In fact, these companies are the founding members of the organization, and they still are by far the strongest voices when it comes to policy and membership on the board of directors. It is interesting to note that four of the licensees are also sub-licensees, in many cases by virtue of companies which they have acquired with allocations attached. These same companies are also members of the MLB as they need to avail of the grading service in order to market their products. Table 6.2.1. indicates the forest sector organizations to which the licensees belong.

Table 6.2.1. Licensee organization memberships

Organization	No.
Wood Products Group	1
Sub-Licensee	4
Maritime Lumber Bureau	4
NB Forest Products Association	6
Total respondents	6

Question 2. What products do you make?

The licensees manufacture a broad range of products which includes: hardwood kraft pulp, softwood lumber (studs and dimension), hardwood lumber, pulp, boxboard, lightweight paper (biggest producer of bible paper in NA), specialty papers which require high quality chips/high quality fibre, I-joists, light weight coated paper, bleached kraft pulp, corrugated medium, specialty products, and specialty photographic papers.

Question 3. Where are your markets (geographic)?

The products are marketed all over the world, and therefore, being competitive is mission critical (see Table 6.2.2.). The competitiveness, like all pulp and paper mills in Canada, starts with access to Crown land to obtain appropriate fibre at a reasonable cost. Markets identified during the interviews were as follows:

Table 6.2.2. Licensee market areas

Market Area	No.
Eastern US	4
Rest of US	3
Atlantic Canada	3
Europe	3
Other	4
Total respondents	6

Other markets identified were the rest of Canada (3), Far East (2), Japan (2). The emphasis here was that it is a global marketplace with the US dominant, but not quite to the same extent as for the value-added or sawmills.

Question 4: What are your overall raw material requirements at the present time? Where do you get the wood today (tenure)?

The respondents all verified that the information in the 1998 Timber Utilization Survey remains accurate and representative, both in terms of volume and origin. The only significant differences from the survey is that Fraser Papers demand is up about 50,000 m^3 from their

own limits due to improvements at the Plaster rock sawmill. The main observation from all interviewed is that this report represents a snapshot for any given year, and markets are cyclical, therefore, the values should be viewed as a good snapshot which is representative of the overall market situation.

A summary of fibre consumed in 1998 is presented in Table 3.1.3. A more detailed summary is included in Appendix J.

Some observations from the interviews include:

a) We have been able to maintain a good relationship with the marketing boards due to our prices - we pay fairly and promptly.

b) We use mostly sawmill residue now through "exchange for fibre" agreements with the sub-licensees. All Crown and industrial freehold wood is exchanged for chips.

c) The company used to buy 50,000 m3 of roundwood from private woodlots, then they invested in a drum chipper at the sawmill. Now the private wood goes to the sawmill and they get the chips from the mill.

d) Now there are 4 drum debarkers in the area, costs about $10/m3 to process and there is now a market for all of the product, so now are getting the maximum value from each stick.

e) Stone uses 35% recycled content mixed office waste, sourced from back haul from US on shipments of corrugated medium. The original Crown allocations were for TMP mill as well which hasn't run since 1991.

f) Private woodlot wood is down as more is being exported than in the past. This has been replaced to some extent from NS imports, but it is coming through the sawmills as residue because no one has wood rooms anymore.

Question 5. Where do you get the material today (geographic source)?

As indicated in Section Three, this is very much an integrated wood market. The licensees are sourcing wood from all adjacent jurisdictions. There are some fairly elaborate swaps being undertaken between different types of companies in different jurisdictions. Consequently, the motivation for making investments in different plants can be driven by more than wanting to enter a market with a new product. For example, Nexfor acquired Juniper Lumber for the Crown allocation and chips that will be generated from the sawmill, as much as for the sawmill and I-joist line. Irving acquired Bégin Lumber to enter into the hardwood lumber market, but they might integrate into higher value hardwood products, and the chips are being used in the pulp and paper operations. One interesting observation, however, is that the licensees are more dependent on Quebec for fibre than on Nova Scotia. This is due to the

continued swap of logs for chips and the degree to which the Quebec sawmills are geared up to produce high quality chips which are well-suited to making pulp and paper.

Another interesting observation is the extent to which the licensees exchange wood between one another. This often has a lot to do with geography and product mix requirements. For example, J.D. Irving, Limited supplies hardwood chips to St. Anne Nackawic, but if they establish their own OSB plant in Maine, then this volume would be redirected to that facility.

Question 6. What do you think your wood requirements will be in five years?

For the most part, the licensees all said that wood demand should be about the same in five years, although some feel that there may be opportunities to expand. Wood supplies are definitely the limiting factor on expansion, although J.D. Irving, Limited did shelve plans this fall for an OSB plant in Limestone, Maine, due to unfavourable market conditions for the product. Once demand picks up, the investment will probably reappear.

One very interesting observation from all of the licensees is that in about 15 years time, there will be some interesting new wood supply from past (and ongoing) silviculture investments on Crown and industrial freehold limits which will create utilization opportunities.

Question 7. How important are outside sources of raw material today? Compared to 1982?

Two of the companies said that outside sources are not important today, nor were they in 1982, as they have sufficient wood supply to meet their needs internally. The other four licensees, however, said that the outside sources are critical and they are much more important than in 1982. Some of the comments were as follows:

a) The sale of a company sawmill changed the need for imported wood, also changed the flow of chips, created an open market for all those chips, which before was a captive market for the licensee.

b) If a new pulp and paper mill opened in Gaspé, it would change overnight the chip market for Fraser and Bowater, and the effects could also be felt in the more southern mills, even if they do not use Quebec chips now. This is because the increased demand for chips would put upward pressure on prices.

c) Crown allocations are down about 14% since 1982 due to withdrawals, and woodlot AACs should also be revised downward as there has been tremendous harvesting pressure with insufficient silviculture efforts, while demand has increased by 40% over the same period. Without imports, the situation would be unmanageable.

Question 8. How important will outside sources of raw material be in the future?

Imported wood will become even more important in the future as companies struggle to meet wood supply needs. Those who do not use imports to any great extent, however, feel that this will not be a major issue for them.

Question 9. Do you see any opportunities for value-added companies to use /benefit from your waste stream?

One company said Yes, another said No and the rest offered no answer to this question. For the company that said Yes, the following points were made:

a) Lumber from the sawmill is being used to make a slab siding product, this could represent a future opportunity.

b) OSB could be an opportunity; need to get the supply from a certain area.

c) Corrugated containers from sludge is another potential product.

In general terms, waste disposal is more of a problem than an opportunity, but the companies are always looking at ways to create value from residue.

The companies all identified ways in which they provide waste such as short pieces from lumber operations which go into other plants now - particularly shorts into lathing operations. There is not much outside opportunity which isn't already being exploited. The final point on this subject is that the integrated companies are, for the most part, using anything of value within the organization.

Question 10. Do you see any opportunities to use /benefit from some other plant's waste stream?

There were no new opportunities identified to use other plant's waste streams because the wood supply market is so integrated today. As already indicated, the mills (with one exception) are being run on residues today and there is very little room to improve utilization.

Question 11. Describe how your operations have changed since the implementation of the Crown Lands and Forests Act, 1982, with respect to integration of products, woodlands harvesting, private woodlot wood.

Changes have been marked with respect to each of these items. The operations are far more integrated starting from the stump and moving through all aspects of utilization; all respondents attribute this in a large degree to the Crown Lands and Forest Act. Best end use is now an operational reality, rather than a goal to be attained. Some specific comments are:

a) One company remarks that in 1982, there was really one product sort: pulpwood or sawlogs. Now, there are up to 30 sorts at roadside and logs move to the best end use- both within and outside the company operation.

b) Another says that in 1982, they concentrated on getting pulpwood to the pulp mill, and now they concentrate on getting sawlogs to the sawmill as the pulp mill runs on residue.

The biggest change in harvesting has been a major shift away from company operations to contractors. There are fewer unionized workers in the woods than ever before and there is a much higher degree of mechanization. Some specific comments were:

a) Woodlands side more contractors for harvesting, but have unionized harvesting crews. Also have the unionized silviculture workers which has compensated for the decline in harvesting workers.

b) Mix of internal and contractor operations for woodlands, 60% union, 40% contractor on New Brunswick Crown , 100% contractor on all company freehold.

c) Subs take advantage of economies of scale that the licensees harvesting operations offer as the licensees can do it better, and the rates are better.

d) Mechanization has led to lots of contractors, i.e. owner/operators.

e) People are a lot more comfortable with long-term management and planning has led to more efficient harvesting effort - not necessarily best first.

The biggest changes for woodlots has been the introduction of more diverse markets which has arisen through increased demand and competition for logs. There are simply more options for the individual landowner, harvesting contractor and wood trucker when it comes to selling the products, and they chase the best price. The removal of the requirement of industry to negotiate supply contracts with marketing boards as a condition of approval of the annual operating plan has changed the environment for the boards substantially. They used to play a much bigger role in marketing products directly, now they act more like forest extension

servers for woodlot owners and operators. A common observation is that most feel woodlots have been severely over cut throughout much of the province, and there is not much good wood left. This has been the result of extremely favourable roundwood markets which have persisted for many years. Some individual comments are:

a) More wood is being sold more carefully from woodlots and there is now a home for every product.

b) Less wood comes from woodlots now as there is more competition for every stick. Owners have more options to sell now and get good prices.

c) Woods contractors operating on small private holdings are much more knowledgeable about the market than in the past.

Question 12. How many sub-licensees do you supply now? In 1982? How many of the sub-licensees are value-added manufacturers?

This question did not yield very useful results. The New Brunswick DNRE has the actual information on which mills are to supply which sub-licensees with fibre and this changes at least every five years. There was mixed reaction regarding which of the sub-licensees would be considered value-added companies, form some who feel they all are, to others who were far more limited in the definition of value-added. On balance, the fact that the mills are integrated and produce chips in exchange for logs was the most important factor for the licensees. They do not focus much attention on end use unless they operate value-added facilities of their own, in which case they end up in competition with the sub-licensees for the same logs. Of more importance is the supply of high quality pulp chips to the licensees for manufacturing pulp and paper products. The most recent New Brunswick DNRE allocation to sub-licensees is included in Appendix K.

Another issue when trying to measure the differences over time of the relationship with the sub-licensees is the fact that many companies have changed hands and the names of the mills have also changed (since 1982). Therefore, it makes comparison of allocations for continuity very difficult.

What is certain, however, is that the number of sub-licensees has diminished from 94 in 1982 to 76 in 2000, a decline of 19% (see Table 6.2.3.). The volume of wood demanded from the Crown has increased, however, as many of the sub-licenses were acquired by the licensees, and the allocations became rolled-up in the overall wood requirements of the licensee. One can only speculate on the number of sub-licensees who are considered value-added companies as this information is not readily available and the licensees may not know what constitutes a value-added plant by definition.

Table 6.2.3. Comparison of Sub-licensees, 1982 to 2000

Item	1982	2000	(%) Change
Sub-licensees (No.)*	94	76	-19.1%
SW AAC (million m^3)	4.08	3.67	-10.0%
HW AAC (million m^3)	0.82	1.55	89.0%
Total AAC (million m^3)	4.90	5.22	6.5%

Source: Personal communication. B. Nelson, New Brunswick DNRE

*Does not include the licensees who are also listed as sub-licensees

Question 13. How many value-added manufacturers do you supply now who are not sub-licensees?

This was a very difficult question for which to get a firm answer. Two respondents said none, two said they don't know, one said two companies and the other did not provide a firm answer beyond "some". The most striking aspect of this question is that the supply of products to companies which are not licensees is not a very big issue, and the products tend to be quite specialized. There may be some room to move in trying to negotiate some wood supply agreements with the licensees for products which are not utilized within the company's own operations. It would require that the potential buyers articulate clearly exactly what they are looking for, and with very solid delivery terms/schedules. Even with this, such supply contracts might still be very difficult to negotiate. Some of the responses are included below:

a) We supply one New Brunswick value-added company with some short pulpwood length hardwood logs which he converts into lumber with a Wood Mizer mill capable of handling short pieces.

b) Hardwood no, but veneer yes, mid-grade lumber yes, and we sell some cedar for shingle stock.

Question 14. What impact has the 1997 New Brunswick DNRE value-added policy had on your operations? Have you seen any positive developments as a result of the policy? Any bad developments?

Two out of the six companies said they noticed no impact from the value-added policy, and no respondent identified any negative or "bad" developments. The effects indicated were positive, mostly from an economic perspective. These companies reacted to the policy and made investments in their sawmilling and other value-added processing operations to ensure that DNRE would have no reason to try to claw back allocation from the licensee. Others strengthened their supply relationship with value-added processors for the same reason. Finally, the only negative comments were that no one has seen any claw back from any company that did not introduce measures to improve productivity and particularly yield at the primary sawmill. This represents a missed opportunity by DNRE, although it was not the original intent of the policy. Some of the comments included:

a) It has had a positive effect because they went from a 10" to a 7" top log which has improved utilization. However, it has been a very difficult job to get guys to do it. 5.7 per cent of the total volume of hardwood tree length is logs and veneer and the resource is dominated by low quality logs. They have started to supply poplar veneer to Nelson Forest Products. There are some higher costs to separate the logs. The main issue is extraction.

b) It helped to acquire new equipment at the sawmill, gave the company a reason to invest.

c) The policy could have focused on improving existing sawmills as well; this may have been a more important first step.

d) The company invested in small top capability at the kraft mill which has delivered big benefit to the company, but the investments were driven by internal economics as much as by the policy.

e) Politics get in the way at times when new allocation decisions have been made which is not positive.

Question 15. What are your biggest constraints in getting raw material now and how can these be overcome?

The licensees for the most part have indicated that there are difficulties finding enough wood, particularly in the higher grade materials to supply the sub-licensees. The market for private wood is very competitive, and this would have to rank as the biggest constraint-competing for the private wood which is critical to all of the companies' wood supplies. As far as overcoming the constraint, the biggest measure is to be willing to pay a top price for the wood, and to remain in close touch with the suppliers regarding what they are buying, specifications, prices, delivery terms, etc. Some individual comments include:

a) Being competitive on price to get the large amount of private wood. Company pays top dollar for roundwood.

b) Sawmills are "in the drain" right now, and as a result, there are no chips available. This means the company must look for pulpwood to chip as there is no wood room anymore.

c) Softwood for the sawmill is very hard to find as supplies and the market get tighter - shrinking AAC from Crown (protected areas, DWA, etc.) means need to buy more on the open market.

d) Private wood is very difficult to find as there is no new wood available.

Question 16. What are your biggest constraints in providing raw materials to your sub-licensees? How are these being overcome? Are there any species/grades which are particularly problematic?

Licensees generally indicated that the quality of the Crown resource is declining. The allocations for the highest grades are too high as the material does not exist in the forest. The utilization standards have increased as technology in the processing facilities has advanced, but even so, there is not enough quality materials to go around. For example, going to tree length from short wood has increased the volume per hectare of useable wood substantially, but sorting for the different products has increased operating costs at the same time. The most often identified problem was for SPF logs and higher grade hardwood logs.

The only method that the licensees and sub-licensees have of trying to overcome these shortfalls now is though utilization, but the industry is rapidly approaching the point where there is no more room to improve. One major problem identified is that there is no incentive right now for the sub-licensees to invest in improved yields at the sawmill as the Crown royalty rate does not differentiate by quality of logs. Some individual comments were as follows:

a) The allocations can be unrealistic because the wood is not there in the quality hardwood species.

b) The quality of the logs is low, and the quality of chips is low as there is too much fir in the SPF. We have tried some exchanges to balance this out, i.e. underutilized materials swapped for logs, chips, but still it is a problem.

c) All of the better harvesting blocks have been cut now.

d) The company does a good job within the constraints of the forest and it employs a very strong "oldest first" policy when allocating cut blocks.

e) The sub-licensees share the misery; it is getting ever more difficult to find logs, and swaps of oversize logs for stud wood are often made which benefits both parties.

f) For the truly high grade sub-licensees, the product expectation is inconsistent with the allocation – the volumes can't be supplied – so DNRE either has to lower the specification or lower the expectation.

g) With SPF, the Crown is missing an opportunity to make the expectation more realistic as stumpage rates are the same regardless of the specification. Where is the incentive?

Question 17. To what extent do you now find yourself competing with value-added manufacturers for the same raw materials; i.e. have you moved into value-added operations which need the same fibre?

The main source of competition identified was for logs which would produce dimension lumber, mainly SPF, although hardwood is also in play for certain licenses. One company has made significant moves into value-added production itself and there definitely is competition for the same resource between the licensee and the sub-licensee(s). The licensee, however, points out that it takes its responsibilities under the Act to supply materials to the sub-licensees very seriously and tries dutifully to meet its obligations. Some of the comments include:

a) Not at all today, except as potential for sorting in the mill yard, there is no integration in the yard.

b) Mostly relates to the dimension lumber, there has been a lot of pressure in the recent past and more consolidation will happen, but there is not a lot of competition for the value-added side.

c) There is no competition with the value-added guys, but there is for sawlogs between sub-licensees as the licensee has its own sawmill.

d) The licensee is definitely in competition now. They used to give all the butt cuts off all the licenses for Nelson. You need to load up the costs on the product, subsidization in a sense if you don't.

Question 18. Have you had any shutdowns or bottlenecks due to raw material shortages in the last 18 months?

Only one of the six companies had experienced bottlenecks in production caused by raw material shortages during the preceding 18 months, but this wasn't viewed as a major issue.

Question 19. How are the recent changes in Crown royalty rates affecting raw material supplies for you?

Only one of the six licensees indicated that the recent changes to the royalty rates has no impact at all on its raw material supplies (see Table 6.2.4.). Four felt the increase had a small impact, while one classified the impact as medium. The main impact was it made the wood more expensive, and the licensees did not like the increases, but they all have accepted them. It was interesting to note that most felt the timing was extremely poor given how markets for SPF in particular declined in the last half of 2000.

Table 6.2.4. How are the changes in Crown royalty rates affecting raw material supplies for you?

Response	No.	(%)
Not at all	1	16.7
Small impact	4	66.6
Medium impact	1	16.7
Large impact	0	0
Total	6	100

Question 20. Are the new Crown royalty rates fair?

As might be expected, none of the respondents think the rates are fair. The main problem is that most think that when you add royalty and overhead charges and silviculture charges, the value is either at, or above, the fair market value of stumpage for private woodlots. Furthermore, they said that there is no provision for the rates to go down. Some of the specific comments were:

a) The rates are now much higher than in Quebec and Ontario.

b) The rates are not fair for pulp.

c) The rates are not fair for hardwood or mixed poplar. They don't reflect the market for low grade, the price is too high.

d) The market has been moving so fast, prices has gone down very quickly for SPF sawlogs, but price of standing wood hasn't changed on the Crown.

Question 21. Are specialty grades royalties fairly priced in relation to lower grades?

Four of the respondents said that the specialty grade royalties are fairly priced while two said they don't know. One added that the softwood prices were not fair, and that the Crown is missing an opportunity to collect more resource rent from these higher grades. Some specific comments include:

a) Taking into consideration the fact that the higher value of the product is reflected in higher rates, it is probably fair.

b) They reflect difficulty in getting raw materials for specialty products.

c) On softwood, Crown is missing an opportunity, while on hardwood, they are probably all right.

Question 22. What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between the primary and value-added sectors?

Four of the six respondents indicated that they did not see much opportunity for co-operation, although most indicated that they had not given the subject much thought. There were some examples, however, which were held out as possibilities for such partnerships. One key was the relationship between Stone-Smurfit and St. Anthony Laths whereby the licensee is sending his high quality shorts from his sawmill to the remanufactured operation. Two said that there had to be some ways of making this happen since it seems in the best interests of the whole province to keep the wood here in process to the greatest extent possible since it means more jobs for New Brunswickers. Some specific comments were:

a) There are probably opportunities which need to be examined. The buyer has to be willing to pay a fair price and we should try to keep the wood here first.

b) There are some examples of this now, the raw material supply also has to be there to make sense.

c) Not sure, but it seems that there should be opportunities, but not for sure.

d) There are lots of opportunities, but they need to be based on long-term relationships.

Question 23. What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between the private woodlot and value-added sectors?

Only one of the respondents said that there are no opportunities, but all of the others indicated that it would be even more difficult than working relationships between primary and value-added companies. This is because the private woodlot wood tends to be very volatile, and very driven by prices. There is not a lot of respect for contractual arrangements, so you can't really count on the wood being there when you need it, as the seller will often tell you he had a better offer between the time you make the contract and the time the wood is available to buy. This would make putting such arrangements in place every difficult. One point that was made firmly by more than one person is the need to open up dialogue, to let the seller know that you want to buy, and exactly what you are looking to buy. Without a strong level of communication of needs and conversely, availability of supply, there is no chance that any relationship could develop. Some specific comments included:

a) Funnel the wood to a sorting facility; private woodlot wood should be sorted.

b) This can be more volatile than working with sawmills, need to have a contract with the marketing board first. It has to be possible to work something out, but need dialogue to make it work.

c) More problematic, who are you making a deal with; writing a contract can't guarantee volume; awareness of the needs of buyer and seller is critical.

d) Private woodlots have tried to do many things, but it is very difficult because these guys are truly driven by price; education is the key; value-added guys would have to buy logs and have them processed; a ticket system to monitor flow; license the contractors

The most promising lead offered by the respondents was the concept of funneling the wood to a central sorting yard to be sure that products are going to best end-use. Without that service, a lot of wood which could make higher value products either disappears into the pulp mill, or it ends up being sorted by the contractor and the owner never benefits from the higher value this wood commands.

Question 24. What opportunities do you think exist, or could be developed, for raw material supply partnerships between the licensees and the value-added manufacturers?

All of the respondents indicated that these relationships exist today, but in reality, it is through relationships enforced by legislation through the sub-licensees. If a sub-licensee happens to be a value-added company, than a relationship exists by default. There was a consistent message that if wood is to flow to the value-added manufacturer, then they will have to pay fair market value for the wood. There was some inference that these companies may not always be willing to pay, so therefore, the wood hasn't always made it to these plants.

The licensees seem to think that there are some possibilities to force the wood from the Crown through a sawmill or primary processing facility and then on to a value-added plant, but they caution against doing anything to alter the natural flow of wood which has emerged today. They fear altering the ability of New Brunswick to purchase wood from any other jurisdiction due to artificial wood flow restrictions imposed by the government. Some comments included:

a) Each case has to be looked at on its own merits.

b) The value-added guys would have to get into the log market in order to get at the logs.

c) The province could make the wood going to the sub then go to the value-added guy but they would have to make the fair market value the driver for the price.

d) Really have to be very careful in trying to give advantages.

e) Don't do anything to force wood against the natural market flow.

Question 25. Does the Wood Products Group have a role to play in developing raw material supply partnerships between any combination of players?

Two out of the six respondents offered no comment or simply cautioned the Wood Products Group from getting involved in the primary sawmill sector. The other four saw definite possibilities for the Group to provide information on the wood needs to the supplier communities, and on the supply possibilities to the members. This is a high priority need if New Brunswick is to get more out of its forest resources. It was interesting to note that the respondents really did not have much knowledge of the Wood Products Group, its membership or its aims. The following comments were offered:

a) Definitely need to approach all the players on this subject - the system of allocation can often stifle competition for the fallout products in an open market fashion.

b) It could have, mainly in facilitation of info flow - Make sure that the licensees and subs understand what is needed and when.

c) The Wood Products Group shouldn't get into the primary sector breakdown.

d) Possibly, since the role of any association is to provide info and to lobby government and others to the benefit of members.

e) Facilitation and information - the specialties need to work to find the suppliers.

Question 26. What is the impact of wood theft on the wood market today in New Brunswick? Is there anything which can be done to address the problem?

It seems that the problem is a local one. All respondents recognized that wood theft is a big issue in some places and three said it wasn't a big problem for them in their area. A universal comment is that there hasn't been much deterrence from the justice system as the fines and penalties are so soft that criminals break the law with impunity. For example, a penalty of $75 for catching a person in possession of several thousand dollars of stolen wood hardly deters the criminal from stealing again. This paltry sum represents a laughable expense, below fuel costs for much of the machinery used to perpetrate the crimes. It was also noted that the New Brunswick Forest Products Association has been working with DNRE and the Department of Justice to address the issue, and an action plan is forthcoming. Some specific comments include:

a) Trespass is also an issue: a load-slip system and code of practice at purchase would go a long way to solve this problem; then enforcement.

b) Major impact on the long term AAC on the license.

c) Private woodlots are now under attack; the laws need to be adjusted; it is a way of life; education is a big issue.

To explain load slip: If a load of wood were being carried across the Canada-US border in the absence of an official bill of lading which shows source of the wood, scaled volume and value, with authorization from the owner, then the wood could be prevented from entering the country until the proper paperwork was completed. In the same fashion, any vehicle stopped on the road in New Brunswick with no load slip could be immediately be considered to be contraband and the authorities would then be obliged to detain the load until the paperwork was presented. In the absence of such a system, tracking wood flow and curtailing theft will continue to be a very challenging job in New Brunswick.

Question 27. What is the likely impact of Native logging on the sector?

The impact identified by every respondent is that the allocation of 5 per cent of the AAC to the natives has made the wood supply a bit more expensive. The wood is "free market" now and the licensees or anyone else buying the wood have to pay the going rate, rather than just paying the Crown rate plus costs to land the wood in the mill yard. There was some concern expressed as to whether the wood is actually staying in New Brunswick or if it is being exported out of province, but there is no direct evidence to indicate that this is happening: it is the rumour mill in action. An important issue is that the native loggers must operate in the cut blocks assigned, and under the harvesting rules established by DNRE, and there are concerns that this hasn't always been happening. The bottom line for the licensees seems to be that this re-allocation has made the wood supply a bit more uncertain form Crown land. Some comments include:

a) As long as the wood stays in New Brunswick; it is a bit more expensive. Could be more impact in the future.

b) Makes the wood supply more tenuous. Four factors are creating an impact: protected areas strategy, native logging, value-added policy, certification all add to uncertainty.

c) Hot item now, haven't been any major problems yet but off-reserve natives are looking to get in on the action.

d) The wood is free market; there is less wood now, but it is sold in province.

e) The 5 per cent is being absorbed now. The natives have done well in some areas, but it has made the wood more expensive. Security of tenure issue is important, cutting practices force people to move outside best practices.

f) There has been no wood supply volume impact yet, but the wood supply has got more expensive.

Question 28. What impact will forest certification have on your wood supply?

The respondents indicated that the issue of forest certification could be a problem. The topic has dominated the forest management discussion amongst the pulp and paper industry in Canada for a number of years, and right across the country it is causing companies to take action. The industry in this province will seek to certify their own limits to "head off" market access problems before they emerge at the customer level.

One respondent said that the issue could become a serious problem if a company required that all its wood supply be certified because so much is imported or comes from private woodlots. Becoming certified presents different challenges to a multiple woodlot owner sector: There are 35,000 owners in New Brunswick - How can we ensure that all of the wood is certified? People are watching the SNB experiment with CSA closely to see if it holds a workable answer to the issue for woodlots.

Question 29. Are you considering becoming certified? Chain of custody certified?

Each of the respondents indicated that the company is either already certified or is in process. Most have chosen to go to the ISO 14001 standard which works very well in an industrial setting, but which has not been widely accepted by environmental groups as a valid certification standard. One person commented that the fact that the licensees are moving toward certification is viewed as a positive development by the sub-licensees because they will have a source of certified timber which will allow them to become chain of custody certified on at least part of the wood supply right away. Some comments include:

a) Working on certifying the Upsalquitch license to ISO 14001; Sub-licensees look at is as a positive development; freehold by next year; pilot project for the company on all holding for Bowater worldwide; it is an issue with customers.

b) Need to go to the FSC scheme if they ever get their act together in the Maritimes region.

Question 30. General comments and anecdotes.

Garbage dumping has become a problem on the license since the local municipalities introduced tipping fees at the landfill sites. This is very difficult to police, but it is causing some problems.

Section Seven: Research Results - Interviews with Marketing Boards

7.1 Overview of the Woodlot Sector

The 35,000-woodlot owners of New Brunswick collectively own 30.4 per cent of New Brunswick's forest land. The balance is either owned or controlled by the forest industry. Given that the Province's forest industry is incapable of meeting it's wood supply needs from the Crown and Industrial Freehold land, private woodlots represent a very important source of fibre for these companies.

Private woodlots obtain harvesting services from well over 1000 independent small to medium sized logging contractors. These numbers are deceptive considering that as many as 300 small contractors (self-employed individuals who purchase stumpage and harvest on private woodlots) have other primary sources of income and only tend to operate seasonally, e.g. fishermen and farmers.

The New Brunswick private woodlot sector officially provides approximately $120 million in annual sales of primary forest products. Unofficially, that amount may be in excess of $175 million. There is growing concern in New Brunswick that this sector is harvesting above sustainable levels. The true level of harvest is unfortunately not documented due to the unavailability of accurate reporting from within the sector. It is nearly impossible to regulate the harvest as it occurs on private land where any individual owner is free to decide when and how much should be cut, both in New Brunswick and Nova Scotia. From Table 7.1.1, it appears that the softwood harvest levels on private woodlots are below the AAC and thus, are sustainable. If the estimates of overcutting are true at 50 per cent, then in reality, woodlots may be over-harvested by as much as 50 per cent in New Brunswick.

Table 7.1.1. NB Harvest 1998 *v.* Annual Allowable Cut, Net Merchantable Volume, 1997-2002

Tenure	Softwood Harvest *v.* AAC (m^3 solid)	Cut as % of AAC	Hardwood Harvest vs AAC (m^3 solid)	Cut as % of AAC	Total Harvest v. AAC (m^3 solid)	Cut as % of AAC
Private	34,691	97.9%	828,295	45.3%	861,986	73.1%
Industrial	-474,178	126.8%	135,639	86.1%	-338,539	112.3%
Crown	-270,305	107.8%	252,630	84.0%	-17,675	100.4%
Total	-709,792	110.3%	1,216,564	70.1%	506,772	95.4%

A negative value indicates over-harvest.

Source: CCFM Compendium of Forestry Statistics.

Every woodlot in the province is represented by one of the seven forest products marketing boards. The boards are granted their powers through the Farm Products Marketing Act,1983, and are answerable only to their membership and the government-appointed New Brunswick

Forest Products Commission. In addition, some of the marketing board regions have sister organizations operating as co-operatives or associations. In most cases, these sister groups were established before the boards and in some cases, the boards of directors for both groups are the same. The Forest Products Commission has no jurisdiction over these sister groups, which appears to be a prominent reason for the maintenance of the parallel organizations.

The marketing boards are empowered to fix and collect a check-off or service charge from all woodland primary forest products to be used for marketing purposes and to promote sustainable management. Only the Madawaska board has the exclusive rights as a single desk seller. Although the boards are empowered to collect a levy or check-off on all primary products produced in their regulated area, there is no requirement for mills, loggers or woodlot owners to conduct the sales through the contracts held and administered by the marketing boards. The legislative changes in 1992 that removed the requirement for industry to bargain with the boards in order to maintain Crown land timber rights, has provided woodlot owners and contractors many more avenues to reach the marketplace than before. This has drastically reduced the bargaining power of the boards and increased the likelihood of non-sustainable practices.

Although the majority of woodlot timber products sold are reported to the marketing boards in the province, there has been no mechanism to ensure that the volumes harvested are reported completely and accurately. It is widely speculated both by the boards and by outside observers that a significant volume, possibly as much as 50 per cent of the reported volume, is being additionally harvested. The forest industry, as well as some of the groups and government is concerned over the possible timber supply shortage in the very near future. The New Brunswick Federation of Woodlot Owners (NBFWO), a lobby group representing six of the seven Boards has been vigorously working with government to find solutions to this potentially serious problem. (York-Sunbury-Charlotte is the only board that is not part of the federation). The areas of most concern expressed by the federation are:

a) Re-instatement of primary source of supply, or single desk selling.

b) Establishment of export levy authority (will also provide accurate numbers on export volumes).

c) Tougher penalties and fair restitution in relation to wood theft. (the Federation believes this problem to be on the increase).

d) Establishment of load slips(a paper process which will identify the origin and destination of all timber products transported on New Brunswick roads - highly controversial, with at least three New Brunswick boards in opposition to the concept).

e) It has been said confidentially by more than one board manager that the situation with wood supply is so bad that the private woodlot sector now has little choice but to rebuild the forest for the future.

7.2 Survey Results: Woodlots

The 1.8 million hectares of private woodlots provide 22.4 per cent of New Brunswick's timber supply. Overall, the seven forest products marketing boards handle more than 70 per cent of the total sales from woodlots, demonstrating that a majority in the private woodlot sector *choose* to market wood through the organizations. Consequently, the interviews for the sector focused on the board managers. Six of the seven boards and the NBFWO were interviewed.

Since the legislative changes in 1992 that eliminated the requirement for the licensees and sub-licensees to negotiate with the boards prior to receiving crown wood, the boards were forced to adapt. No longer able to focus their energies in negotiating with the New Brunswick licensees and sub-licensees, many of the boards were forced to turn their focus south of the border for higher priced sales opportunities.

Three boards indicated that before the legislative changes, they were successful in steering wood to underutilized New Brunswick markets through the adoption of marketing policies and strategies. An example given was the initiation in the three regions during the 1980s of utilization standards which required the producers to market saw material as a condition to accessing the pulp markets. There was at that time a widespread notion that pulpwood provided greater returns to the owner than the production and sale of sawlogs. The boards attributed this to the lack in confidence of sawlog scaling procedures used by the sawmills. Log scaling was viewed as highly variable and very subjective, which impacted negatively on revenues. In two of the three cases, sawlog production increased more than threefold within three years of policy inception.

Today, the boards feel they do not have the ability to steer or direct timber to any particular mill. Boards can only operate simply as brokers, providing information to their memberships on prices and product specifications, and providing brokerage sales services to these markets. Even today, the concepts of single desk selling and primary source of supply are still viewed by many of the boards as necessary to provide the sector with the leverage they need to effectively negotiate with the mills that receive significant crown land timber rights. The most common concern seems to be over the issue of payment terms with a number of mills. Before the legislative changes, payment terms were a negotiable item which were strictly enforced through the prospect of potential postponement of crown timber rights for failure to meet the contracted terms of payment. The boards felt that this provision provided some security for timber receipts. Historically, most boards received payment within seven days of delivery, while today, receipts most often are in excess of 14 days, requiring a virtual doubling of the required board capital for sales financing.

During the interview process, the boards were asked if they perceived a possible role they could play in helping to direct timber into the value-added sector. Unless the business operated its own primary processing facility, it was viewed unlikely that the board could have any role to play. Simply put, the boards and their woodlot owners and producers are in the business of selling roundwood. It was suggested that the best course of action would be for the value-added sector to ally itself with some of the smaller mills that simply saw timber in the province for their supply. Should an agreement between the value-added manufacturers and some small mills be arranged to provide a stable market, cash assurances and competitive pricing, the boards expressed confidence in their ability to spread the word and help source timber. On the down side, some boards presently stay clear of small mills, fearing that possible cash shortages may inhibit their receipt of payments. The losses taken by some boards in the Juniper Lumber experience have made all boards wary.

Section Eight: Conclusions and Recommendations

8.1 Overview

The conclusions and recommendations are intended to improve the value-added manufacturers' ability to secure adequate supplies of raw materials to continue their businesses profitably. Some recommendations are directed at the manufacturers, some at the Province and Canada, and some elsewhere in the sector.

Companies with primary sawmilling capability have a whole different set of needs than those without. The former are in the roundwood market and the products they make in many cases are "close" to the sawmill, such as pallet stock or cut stock. Those without sawmilling capability tend to buy lumber and panels on the open market and really don't have much knowledge or interest in roundwood markets. Consequently, the companies with no sawmill tend to source their wood from outside the province and any competitive advantage which could accrue through processing in New Brunswick is lost.

8.2 Conclusions and Recommendations

Conclusion 1: The main conclusion regarding New Brunswick wood supply and demand from reviewing documentary sources, and in conversation with all players, is that the evidence points to an ever tighter timber supply situation in New Brunswick's future. In 1998, almost 20 per cent of New Brunswick's softwood requirement was imported. It is increasingly obvious that the health of the wood business in New Brunswick will be dependent on imports of almost every manner of wood imaginable, from sawmill chips as furnish to the pulp mill through logs for the sawmills to high quality lumber and panel products for the value-added facilities. Clearly, economic growth in the forest industry in New Brunswick must rely on creating more value from the resource, and on continuing to import significant quantities of wood from adjacent jurisdictions. Importing logs is marginal for many companies due to the high transportation costs, particularly as fuel prices escalate. It is only economical when the products are very high in quality. Most companies are dependent on stable and relatively low log costs for survival, indicating that margins are fairly tight for many.

It is essential that every effort be made by provincial and federal regulators and policy makers to protect the free flow of all manner of wood products into and out of the province. Any policy which imposed restrictions on flow through erecting either tariff or non-tariff barriers would serve to constrain the ability of the province to compete in the longer term as raw materials for the industry would simply be unavailable in sufficient quantities to maintain existing output, let alone enhance production. It is interesting to note that the current restrictions on exporting unprocessed Crown wood from the province have not raised any issues for the province in relation to unfair trade practices, principally due to the forest management responsibilities of the licensees, and the calculation of royalty and overhead charges. As such, there may be room to broaden the definition of export to encourage value-

added processing "in-province" of Crown wood which will not raise the spectre of unfair trade practices.

Recommendation 1. *The Province should not introduce any policy which will in any way prohibit the import of wood in any form into New Brunswick as the current industry could not operate without such wood supplies.*

Conclusion 2. A large volume of private woodlot wood is being sold as roundwood to US customers. This is cash business and it is very difficult to get a handle on volumes moving. Some system of monitoring this flow to try and stop wood theft is needed. The Registry of Buyers in Nova Scotia, while not a direct stimulus to value-added manufacturing, has provided a method for monitoring, and perhaps eventually regulating, the flow of wood to value-added producers and out of the province. This is critical if jurisdiction is intending to generate more economic activity through value-added manufacturing.

Given the growing concerns over wood theft, and the ever-present threats of phytosanitary trade sanctions, it is becoming more important to know the provenance of any wood product. As well, better information regarding the needs of value added sector will allow for better policy development to encourage the sector to flourish.

As is common in most countries, efforts toward monitoring of goods entering the country far exceeds that exerted on exports. As such, information regarding both quantity and quality of timber leaving the province is sketchy. This lack of accurate information makes promotion of further processing into value-added products more difficult. One possible method of addressing the problem cost effectively would be to approach US Customs and Immigration regarding sharing information on wood exports. A reciprocal arrangement could be mutually beneficial.

Recommendation 2. *The Province should consider implementing a monitoring policy which would require every load of wood being delivered to any customer to have a slip stating volume, species, grade and provenance.*

The Province should consider putting in place a monitoring system which can help track the flow of wood to and from value-added companies and out of the province.

The Province should work with Canada to modify the reporting requirements at the international borders to provide better information on the quality and quantity of timber being exported from New Brunswick.

Conclusion 3. The use of fibre facilitators in British Columbia has served to ensure that the wood needs of the value-added manufacturers are clearly identified and articulated to those with access to Crown timber. Through this process, wood is being diverted to value-added manufacturing with all the associated economic benefits (employment, income, GDP growth).

Recommendation 3. *The Province should consider providing funding for one or more fibre facilitators to ensure that the wood needs of the sector that can be met through the Crown are met through the Crown. Given the high percentage of private woodlots in the region, it would make sense to extend the mandate of the facilitators to investigate supply from this source concurrently.*

Conclusion 4. British Columbia has recognized that there is merit in having the value-added wood products sector grow and it has realized that fostering a sense of co-operation among the "actors" in the sector will in fact encourage the development of wood products manufacturing clusters. They have used the Forest Renewal Fund to support ongoing training and education programs delivered by the BC Wood Specialties Group, which is a major source not only of sustaining funding for the BC equivalent of the Wood Products Group, but it also allows the companies to become more competitive.

Recommendation 4. *The Province of New Brunswick should consider providing some sort of sustaining funding to the valued-added sector that would allow better focus of time and energy on helping the businesses with market access, training, technology and, in general, improving competitiveness.*

Conclusion 5. The encouragement of the development of wood products clusters in certain countries will make their industry more competitive in the long run. In the Maritime provinces, and particularly in northern New Brunswick, one could argue that at least one value-added wood products cluster has evolved. This concept holds much promise for New Brunswick and the rest of the Maritime provinces.

Recommendation 5. *The Government of Canada should undertake a serious investigation of the concept of wood products manufacturing clusters in the Maritime region with the aim of establishing a pilot project in a targeted area including a benchmarking study such as the Scotland example in the body of the report. This does not mean establishing new companies, but rather helping the existing companies to work together for business advantage.*

Conclusion 6. There is a need to combine processing and merchandising of timber. If every hardwood log from Crown land had to be sorted in a merchandising yard before processing, the availability of high-grade logs could increase five- fold. Accurate scale would be achieved and DNRE would get full value for royalty.

Recommendation 6. *Set up a pilot program with one license for hardwood logs to establish a merchandising yard and measure the results closely.*

Conclusion 7. A major problem for some companies is having the cash to immediately buy wood when it is available. When markets are strong, no sawmiller is willing to wait any longer than 10 days for his money. The brokers buy the wood on the spot and in many cases are floating the wood supply for the mill. In order to compete more effectively for raw materials, value-added companies need more ready access to investment capital, or to a more flexible operating facility.

***Recommendation** 7. The Province and Canada should examine options for providing better access for value-added companies to investment capital and to a more flexible operating facilities which in turn will help companies purchase raw materials.*

Conclusion 8. The low availability of reasonably priced hardwood lumber is a major constraint for value-added manufacturers. Many of these companies can't afford to buy hardwood lumber on the open market as the margins are very tight on most of the products they make. In some cases, the whole business is predicated on getting waste material from other mills for the price of chips. What happens now is that logs are delivered to a local hardwood sawmill which saws them into lumber and sells everything that makes a grade board to a broker. The broker has the wood dried and graded, then sells it to a wholesaler. The wholesaler then sells the graded lumber to New Brunswick value-added companies at market prices. It is evident that at each step of the process, costs accrue and margins are applied. This is what makes the wood so expensive by the time it gets to the value added manufacturer. An integrated operation is able to apply more reasonable margins at each step of the process and thus can be much more competitive.

As well, Maritime forests contain substantial volumes of low-grade hardwood, much of which is characterized by small trunk diameters with sweep, crook and other defects. By conventional scaling and grading criteria, in which log size and length are major factors, this resource is of inferior commercial value, of little use to the primary sawmill sector, and generally is harvested for firewood if at all. There is an opportunity to focus on producing value-added and specialty items from hardwood bolts in 3- to 6-foot lengths; that is, wood that is by definition incapable of producing conventional graded lumber.

There is a small amount of wood sold from the licensees to buyers who are not sub-licensees. One very interesting example is the sale of pulpwood and firewood grade hardwood logs to a value-added manufacturer who has integrated backwards to a sawmill which is capable of handling short length, fairly large diameter logs and making short length lumber. This type of product is perfectly well suited to many of the value-added hardwood companies in New Brunswick today as they have no need for pieces longer than about 42 inches. All of the products they make have no pieces longer than this, and they simply end up cutting longer boards to length to meet the specification for the client. Utilizing this part of the resource puts the value-added producer in competition with the fuel wood producer only, and in effect can serve to extend the available resource substantially without detracting from other users (beyond the firewood producer).

Recommendation 8. *The Province and Canada should consider encouraging backward integration (either internally or contractually) of value-added companies to specialized primary sawmills which can handle small length/poor quality logs to improve competitiveness.*

The value-added manufacturers should investigate approaching the licensees to negotiate supply contracts for the "short length" hardwood logs which can be converted into usable lumber for the majority of value-added companies.

Conclusion 9. Unless a company operates a sawmill, veneer mill or a panel plant today, or did in the past (historical draw), it is extremely difficult to secure an allocation of Crown wood. Most value-added companies feel that this is wrong and that the wood does not end up in their plants due to the way the market functions (as previously described). The primary mill that is selling to the value-added company may not have the appropriate technology to provide lumber or components to the manufacturing plant in the form required, and as such, efficiency is lost as the value-added plant has to become a remanufacturing plant instead of keeping this function where it most logically should reside: at the primary breakdown.

As well, all sub-licensees value their allocation to Crown land highly. They will take what wood they can get at almost any price within reason because it is a guaranteed supply. One of the most important aspects of having Crown allocation, however, is that it makes obtaining financing of any sort much more attainable due to the guaranteed supply of at least some of the furnish requirements. On the other hand, the absence of any tie to an allocation of Crown land is a constraint when talking to bankers.

The concept of establishing a "virtual license" was raised as a possibility where wood is allocated to the value-added manufacturers, but processing must take place within the existing or newly developing sawmilling sector. A very major concern here, however, is to be careful to keep the focus on representing the interests of the industry to government, rather than simply becoming an agent of the Crown.

Recommendation 9. *DNRE should consider allocating the hardwood and possibly hemlock and larch logs to the value-added producer, rather than the primary sawmill, with the condition that the logs be processed at a New Brunswick mill (as per current regulations). This could be in the form of a "virtual license" to a governing representative body, or to individual companies. The only exception would be a sawmill which can produce evidence of long term contractual arrangements to supply value-added companies with lumber or other raw materials.*

Interested parties should develop a proposal for consideration by the Province to gain a direct allocation for member companies, exploring the concept of establishing a "virtual license".

Conclusion 10. It seems clear that the availability of market opportunities to sell value-added wood products is not limiting the expansion of the industry at this time. In fact, markets for almost all products have been very strong for many years. Some have estimated that anywhere from 40 per cent to 50 per cent of the people working in the value-added wood products sector in New Brunswick have never experienced a recession during their working lives.

More than one sub-licensee has reported that the Crown allocation has been reduced in subsequent periods due to not using the allocation in a previous period. This wood is often re-allocated to a new entrant, or strengthens an existing company, and it puts a lot of pressure on the company whose allocation is reduced. A company would be much better off harvesting the wood and selling it to another sub-licensee than losing their quota if for some reason demand is reduced during a given period.

Recommendation 10. *Before any value-added company has the allocation reduced due to a "use it or lose it" scenario, a careful examination of the circumstances surrounding the lower level of deliveries must be undertaken. Only if a company is truly reducing output due to real production constraints should the allocation be reduced.*

Conclusion 11. Poplar was identified most often as being underutilized in New Brunswick. It wasn't so much that the wood is not being harvested and used in the reconstituted board plants and as pulpwood. The problem is that there is very little of this species being sawn because when the Crown wood allocations were established in 1982, there was very little poplar being sawn, so this species has been allocated to other types of end users. There are a couple of users of poplar who would be happy to have access to some of this wood.

Recommendation 11. *The Province should consider allocating some poplar sawlogs to the existing users and facilitate volume exchanges with the companies which only need low grade material to produce their products on a "pilot project" basis.*

Conclusion 12. One of our best species from a silvicultural point of view is red maple and it can be used to make some outstanding pieces of furniture and specialty accessory items. The biggest issue is the image the species has. It is viewed as low grade and very problematic to work with. Another species which is fairly abundant but again has not been widely accepted in world markets for upscale products is yellow birch. Both these species could serve to extend the wood supply for value-added manufacturing if they were more readily accepted by the buyer.

Recommendation 12. *A campaign to promote our native species, particularly red maple and yellow birch, should be developed similar to efforts undertaken by the Q-Web (formerly BPIB) in Quebec.*

Conclusion 13. It is apparent that most manufacturers are already experiencing wood shortages and are venturing further afield to procure supply. There will be growing interest in looking at how alternative species can be used in manufacturing processes, and in researching new products and processes in these species. As well, there is a growing movement afoot towards substituting reconstituted panels for solid wood in many applications. There are a number of companies who seek relatively small volumes of panel products like melamine, MDF, OSB which have problems getting volumes and quality when they need it. This can pose a serious problem through interrupting production as they wait for delivery of panels. Given that a fair amount of New Brunswick Crown fibre is being processed by two New Brunswick panel producers, there may be some opportunities to establish some reciprocal agreements with these manufacturers to bring supply panels to New Brunswick companies on a priority basis to help address anticipated shortfalls in solid wood supplies.

Recommendation 13. *The Province should consider working with mills which use New Brunswick fibre to manufacture reconstituted board products to arrange preferred customer status for New Brunswick value-added companies. The value-added companies could aggregate the demand for panel products and seek collective offers from the market, with special attention to the New Brunswick and Gaspé panel plants*

Conclusion 14. There is definitely an opportunity to develop co-operative supply agreements between the value-added manufacturers and the private woodlot owners. The biggest issue is to determine how to overcome some of the major historical obstacles to making it happen. The issue of paying fair market prices with fair scale promptly is the key from the woodlot owner perspective. The provision of long term supply agreements with fixed volumes and prices are the key for the manufacturers. If these conditions can be met, then wood supply agreements could be developed. Another major issue is to determine how to bring the sawmillers into the equation. If the logs were bought by the value-added companies and sawn on contract to the specifications of the wood owner, then the sawmill could become a service provider. This would be beneficial for the sawmill as it would not need to tie up money in logs and inventory-this would be the responsibility of the value-added mill.

Recommendation 14. *The value added companies should consider approaching the woodlot owner organizations (marketing boards, NBFWO, contractors, truckers) to open dialogue towards establishing long term supply contracts between woodlot owners and value-added companies.*

Conclusion 15. There is a need to provide better information regarding the needs of the buyers to potential sellers, and the availability of products from the sellers to the buyers. This can extend beyond raw materials to any type of consumable (glue, adhesives, abrasives, coatings, etc.). Formation of some sort of a buyer group could be a method of accomplishing this. The idea is to allow all participating member companies to benefit from better terms (financial, delivery, etc.) when using the buying group.

Recommendation 15. *The value-added manufacturers (possibly using the Wood Products Group) should consider forming a buyer group to shop all of the needs of member companies for goods and services. One possible form could be establishing preferred supplier status for Associate Members which any member could use when buying from the company.*

Conclusion 16. The issue of forest certification is gaining attention in North America, although it still lags Europe. There will be a time in the near future when it will be impossible to sell any wood product to a large customer (such as a box store) in the absence of a "green certificate". While many see this as a remote threat now, unfortunately it could become very real, very quickly.

It is anticipated that market demand for certified lumber and panel products will continue to increase, and unless immediate measures are taken now to ensure that the New Brunswick regional wood basket moves to become certified quickly, then appropriate wood supply will be severely lacking. As well, unless this happens quickly to the free market wood, then the wood produced from the relatively small acreage under certificate will becoming very expensive (law of supply and demand). This issue has the potential to render much of the Maritime timber supply inappropriate for the purposes of manufacturing products for export.

Recommendation 16. *The Province should ensure that at least some Crown land in New Brunswick become certified as a condition of allocation, and that freehold land of licensees and sub-licensees be held to the same standard as a condition of allocation.*

Conclusion 17. The issue of native logging is a concern to many forest product companies, particularly those with sawmills. They perceive that the "playing field" is not level, and that wood costs are being raised unnecessarily by the 5 per cent allocation to the bands. There are many concerns about environmental practices as well. On the other hand, there is a tremendous opportunity for the bands to gain economic benefit from this resource in the long run. Bands need proper advice to develop a long term strategy for maximizing the benefits in a sustainable manner. However, it is generally felt that the initiative here should come from the native community.

Conclusion 18. The licensees really don't know a lot about the value-added companies unless such a company happens to be a sub-licensee for which they are responsible to provide an allocation. They are not all that aware of who the companies are, what they produce, and what resource requirements they might have. In order to have a better chance of obtaining some product from the licensee, particularly from the industrial freehold limits, the value-added manufacturers must do a better job of telling the licensees what is required for their processes.

Recommendation 18. *The Wood Products Group, on behalf of member companies, should prepare information on their raw material requirements for presentation to senior officials of the licensees, to create some awareness of the needs and opportunities for both parties.*

Conclusion 19. Scaling has been a point of contention between woodlot owners and sawmills in New Brunswick. In order to overcome these problems, a consistent application of the Maine Log Rule would serve both buyer and seller. The owners understand that the scale will be as good as or better than what they are used to with the New Brunswick Log Rule. If prices are fair, then value will be at least even or greater than they have experienced in the past.

Recommendation 19. *Value-added companies wishing to buy private woodlot wood should use, and advertise the fact that they use, the Maine Log Rule for scaling.*

APPENDIX A

GRAHAM D. SAVAGE

35 Clarkhill Crescent♦Saint John, New Brunswick, Canada E2M 5P7♦(506) 674-1198♦nsavage@nbnet.nb.ca

PROFESSIONAL SUMMARY

A senior level professional with practical experience in and solid understanding of a diverse range of business management applications, including planning, market analysis, sales and marketing, team building, customer service, and quality assurance. Comprehensive working knowledge of how all levels of government function from a bureaucratic and political decision making perspective. Demonstrated ability to select, train and retain self-motivated, goal oriented employees. High caliber presentation, negotiation and closing skills. Proficient in French.

CAREER EXPERIENCE

OSO HOTWATER NORTH AMERICA INC., ***Saint John, New Brunswick*** ***1996-1999***

President & C.O.O.

Originated the company, transforming an idea into a successfully developing import and sales company. Co-ordinate marketing, importing, warehousing and sales of stainless steel water heaters from parent company in Norway to utility and wholesale customers in Canada and the U.S.

- Negotiated first multi-million dollar, multi-year contract within first year of operation, thus allowing the business to become established in Canada
- Strategically implemented successful marketing and ad campaign which launched the product in 3 provinces, and established key wholesaling capability in each province
- Negotiated very favourable terms for land to establish a production facility and obtained conditional approval for financing from banks and government for the project
- Researched market competition and their prices in Canada and the U.S. to develop a strategic business and marketing plan for both countries
- Positioned the company to become the premier supplier of high quality, cost effective water heating solutions in North America

CANADIAN FOREST SERVICE, ***Fredericton, New Brunswick*** ***1990-1996***

FOREST ECONOMIST

Recruited specifically to bring an extroverted approach to a traditionally introverted organization. Successfully established and cultivated very positive working arrangements with the most difficult clients of the organization. Brought diverse interest groups together to establish common goals for resource management and sustainable economic, social and ecological development.

- Chaired the 23 stakeholder Socio-economic committee of the Fundy Model Forest to ensure that the IRM plan balanced social and economic needs against biological sustainability
- Lead Strategic Planning Workshops, and used output to prepare business plans for 2 new product/service streams for CFS-Maritimes region
- Lead study which brought together architects, interior designers, manufacturers, sawmillers and wood growers to produce award winning samples of Maritime Maple products (doors, tables, etc)
- Provided ongoing policy analysis and Ministerial briefing notes on issues of importance to the forestry sector
- Developed custom forestry software to combine biological and financial growth for investment and property expropriation valuation

GOVERNMENT OF NEWFOUNDLAND & LABRADOR, *St. John's, Nfld.* ***1986-1990***
ECONOMIST, ECONOMIC RESEARCH & ANALYSIS DIV., CABINET SECRETARIAT
Senior economist responsible for conducting economic research & analysis on resource policy issues with particular emphasis on forestry, oil & gas, & manufacturing as part of a team of economists. Extensive EDP experience was utilized by Secretariat leadership to oversee acquisition, development and maintenance of EDP systems. Direction for the group came principally from the Resource Policy Committee of Cabinet.

- Ongoing analysis of many Cabinet submissions from resource departments on economic dev't & resource allocation including provision of recommendations to senior management & Cabinet
- Participation in multi-discipline/departmental teams for special projects such as: successful pursuit of large contracts & gov't assistance for Crown Corporations; blueprint for new industrial dev't opportunities in Labrador; offshore Oil & Gas dev't which lead to the Hibernia oil project (the largest such investment in Canadian history)
- Prepared detailed RFPs for EDP equipment for the Premier's office during a change of government & for a system to manage the paper flow of Cabinet which has provided approximately 10 years of trouble free, effective service
- Ongoing analysis & public reporting on the forestry, oil & gas and manufacturing sectors of the economy

GOVERNMENT OF NEWFOUNDLAND & LABRADOR, *St. John's, Nfld.* ***1983-1986***
FOREST ECONOMIST, DEPT. OF FOREST RESOURCES & LANDS
Recruited as the only Forest Economist in the Department to work directly with Senior Management and the Federal Government on maintaining and enhancing the flow of funding for resource management in the province. Graham was responsible for providing economic/policy research & analysis on forestry & manufacturing issues to assist in managing the provincial forests. Accomplishments included:

- Interacted daily with the Minister's office to prepare Cabinet Submissions and Ministerial Briefing Notes on issues of importance to the sector
- Planned, implemented and evaluated the Federal/Provincial Forest Resource Development Agreements valued at approximately $20 million annually
- Co-ordinated, prepared and submitted a 20 year forest resource dev't plan which was the key document required to negotiate a new Forestry Development Agreement
- Represented the province on the softwood lumber countervail suits brought by U.S. interests against Canadian producers, which lead to Newfoundland being found excluded in the action
- Participated in multi-department/multi disciplinary teams to stimulate industrial dev't in the Province which resulted in new sawmill and value added initiatives at several sites
- Acquired and implemented the first microcomputer equipment in the Dept. which lead to a rapid uptake of this technology throughout the Dept.

EDUCATION

MASTERS IN FORESTRY (RESOURCE ECONOMICS) ***1984***
University of New Brunswick, Fredericton, N.B.

BACHELOR OF SCIENCE IN FORESTRY (RESOURCE MANAGEMENT) ***1981***
University of New Brunswick, Fredericton, N.B.

Continuing Education: Intermediate French; Integrated Approaches to Resource Planning & Management, The Banff Centre; Understanding Financial Statements; Effective Negotiation-Karras Seminars; and, various Planning/Work Habit Improvement/Supervisory Skills courses /seminars

Computer Skills: Fluent in micro-computer operations, since 1979, all major business software, LANs, internet, and some specialty products

REFERENCES PROVIDED UPON REQUEST

GDS ENTERPRISES INC.

YOU PROFIT BY OUR ENTERPRISE

PRODUCTS & SERVICES

GDS Enterprises Inc. was formed by the President, Graham Savage, BScF, MF, in 1999. The company draws upon 16 years of broad based private and public sector experience, and 8 years of post-secondary education in Science, Economics & Resource Management. See attached Resume for more information. The GDS Enterprises Inc. mission is:

"To Deliver Outstanding, Results Based, Cost Effective Solutions to Further our Clients' Business and Organizational Interests".

This is accomplished by listening carefully to the Client's objectives, preparing a plan of attack to meet those objectives, and implementing the plan together with the client. In most circumstances, even the most complex tasks can be broken down into simple, achievable steps, which when taken together, lead to a solution which meets or exceeds the original objectives. Whenever necessary, our network of professional resources can be accessed in the fields of legal, financial, insurance, human resources, customer service, transportation logistics, customs brokerage, software development, photography, graphic design and printing to supplement the skills available "in-house", and to deliver the desired results.

GDS Enterprises Inc. specializes in:

- ✓ Business Development: Providing assistance in preparing business plans, marketing plans, promotional activities, sales plans, human resource strategies.
- ✓ Establishing New Markets: Assists in landing new contracts for existing or planned products in new areas currently not being accessed by the company.
- ✓ Exporting & Importing: Helping the company prepare for either selling into, or importing from, new markets. This involves logistics, legal agreements, financing, insurance, and getting connected with the right representatives to help build long term, trustful relationships.
- ✓ Professional Networking: Bringing together the right mix of professionals to meet the objectives of the client. This can vary from introducing a new business to an existing community, through to assembling as trade mission to bring foreign investment to the area.
- ✓ Strategic Planning: Leading organizations through the process of developing a strategic plan through facilitation at planning retreats to preparation and presentation of the completed plan to the client. In many cases, the client only needs some help to get started on the process, while in other cases, a more complete service is required.
- ✓ Economics & Resource Studies: Conducting assignments to evaluate new business opportunities, develop new products, establish new approaches to addressing resource management or policy issues, directing resource management investments to the best returns, resolving resource management and allocation issues.
- ✓ E-Commerce/Web Services: GDS Enterprises Inc. provides a variety of computer and internet related services through Collective Multi Media.

COLLECTIVE MULTI MEDIA

A DIVISION OF GDS ENTERPRISES INC.

PRODUCTS & SERVICES

Collective Multi Media is built around over 20 years of micro-computing experience in business, government and educational environments, and 5 years of internet based programming. The target market is small to medium sized enterprises which seek to expand their markets and improve customer service. Michael Burchill, Division Manager, is A+ Certified and leads a team of specialists to provide solutions which allow the client to meet objectives in a cost effective and timely fashion.

Collective Multi Media specializes in:

- ✓ Needs Assessment: Determining what type of EDP solution is appropriate, preparation of a Request For Quotations for any hardware or "off the shelf" software, overseeing installation and implementation.
- ✓ Web Site Development: Planning, developing, implementing new web sites; training clients on effective site operation/upkeep.
- ✓ Increasing Site Traffic/Internet Consulting: Ensuring that the site has the maximum exposure to the intended audience, and improving/redesigning existing sites to meet emerging needs.
- ✓ Web Site Maintenance/Service: Providing full services to ensure web traffic is properly managed to maximize benefits to the client.
- ✓ Web Based Advertising: Attracting and managing banner and other types of advertising on behalf of clients through banner ad hosting service.
- ✓ Marketing Services/E-Commerce: Graphic design, on-line ordering, electronic catalogues and hyper links.
- ✓ Content Provider: Online magazines, portals, newsgroups
- ✓ Flash Graphics: Design and implementation of the most recent streaming video graphics which can bring motion to a web site without sacrificing performance.

FEE SCHEDULES

Fees are based on contractual arrangements for each job. The client receives a Statement of Work outlining the time minimum time allocation for each job and the deliverables. GDS Enterprises Inc. uses the following policy: 25% due on signing the contact, 50% on delivery of first draft, 25% on final sign off by the client. Individual per diem or hourly rates are also available on request.

CONFIDENTIALITY

Trust is the cornerstone of our business. GDS Enterprises Inc. and its staff undertake a professional comportment in all aspects of conduct. It is our commitment to the client that their business interests are paramount when GDS Enterprises Inc. is engaged.

APPENDIX B

APPENDIX B
LICENSEE QUESTIONNAIRE

Questno	Question

1 Are you a member of the following:

WPG	Sub-Licensee	MLB
NBFPA	Other	

2 What products do you make?

3 Where are your markets (Geographic)?

Eastern US	Rest of US	Atlantic Canada
Europe	Other (specify)	

4 What are your overall raw material requirements at the present time? Where do you get the wood today (tenure)?

5 Where do you get the material today (Geographic Source)?

NB	NS & PEI	Quebec
Maine	Other (specify)	

6 What do you think your wood requirements will be in five years? (Use the attached Excel form to fill in the details).

Questno	Question
7	How important are outside sources of raw material today? Compared to 1982?
8	How important will outside sources of raw material be in the future?
9	Do you see any opportunities for value added companies to use /benefit from your waste stream?

Yes No

10	Do you see any opportunities to use /benefit from some other plant's waste stream?

Yes No

11	Describe how your operations have changed since the implementation of the Crown Lands & Forests Act of 1982 with respect to integration of products, woodlands harvesting, private woodlot wood.
12	How many sublicensees do you supply now? In 1982? How many of the subs are value added manufacturers?
13	How many value added manufacturers do you supply now which are not sub-licensees?

Questno	Question

14 What impact has the 1997 NBDNRE Value-added policy had on your operations? Have you seen any positive developments as a result of the policy? Any bad developemnts?

15 What are your biggest constraints in getting raw material now and how can these be overcome?

16 What are your biggest constraints in providing raw materials to your sub-licensees? How are these being overcome? Are there any species/grades which are particularly problematic?

17 To what extent do you now find yourself "competing" with value added manufacturers for the same raw materials? i.e. have you moved into value added operations which need the same fibre?

18 Have you had any shutdowns or "bottlenecks" due to raw material shortages in the last 18 months?

Yes No

19 How are the recent changes in Crown royalty rates affecting raw material supplies for you?

Not at all Small impact Medium impact

Major impact Don't know

20 Are the new Crown royalty rates fair?

Yes No Don't know

Questno	Question

21 Are specialty grades royalties fairly priced in relation to lower grades?

Yes No Don't know

22 What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between the primary and value-added sectors?

23 What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between the private woodlot and value-added sectors?

24 What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between the Licensees and the value added manufacturers?

25 Does the WPG have a role to play in developing raw material supply partnerships between any combination of players?

26 What is the impact of wood theft on the wood market today in NB? Is there anything which can be done to address the problem?

Yes No Don't know

27 What is the likely impact of Native logging on the sector?

Questno	Question

28 What impact will forest certification have on your wood supply?

None | Could be a problem | Major impact

Don't know

29 Are you considering becoming certified? "Chain of Custody" certified?

Yes | No | Maybe

Don't know

30 General Comments and Anecdotes

APPENDIX B
VALUE-ADDED QUESTIONNAIRE

Questno	Question

1 Are you a member of the following:

WPG	Sub-Licensee	MLB
NBFPA	Other	

2 How many years have you been in business?

1-5	6-10	10-25
25-100	100+	

3 What are your total Annual Sales of Value Added products?

Under $2 million	$2.1 - $10 million	$10.1 - $25 million
$25.1 - $50 million	Over $50 million	

4 What products do you make?

5 Where are your markets (Geographic)?

Eastern US	Rest of US	Atlantic Canada
Europe	Other (specify)	

6 What type of markets do you sell to (i.e. box store, wholesaler, etc.)?

Wholesaler	Box Store	Retailer
Direct to customer	Other (specify)	

Questno	Question

7 How are your products marketed (commissioned agent, direct to wholesale, direct to retail)?

Commissioned Agent | Direct to Wholesale | Direct to Retail

Internet | Other (specify)

8 What are your overall raw material requirements at the present time?

9 Where do you get your wood today (Land Tenure)?

Crown | Industrial Freehold | Private Woodlots

Other (specify)

10 Where do you get the material today (Source)?

NB | NS & PEI | Quebec

Maine | Other (specify)

11 What do you think your wood requirements will be in five years? (Use the attached Excel form to fill in the details).

12 What are your total annual wood costs?

Under $500,000 | $500,001-$1 million | $1-$5 million

$5 to $25 million | Over $25 million

13 Can you use finger joint stock, waste etc, that is: do you see any opportunities to use /benefit from some other plant's waste stream?

Questno	Question

14 Ha[illegible] ever tried to source material for outside the province?

Yes No

15 Do you plan to source wood from outside the province in the future?

Yes No

16 What are your biggest constraints in getting raw material now and how can these be overcome?

17 What locally-produced raw material do you need that you cannot now obtain? What species, grades, dimensions, etc. are most affected?

18 Where is this raw material currently going? Why can't you get this wood?

19 Have you had any shutdowns or "bottlenecks" due to raw material shortages in the last 18 months?

20 What is the dollar impact of this raw material shortage on your business?

Questno	Question

21 How much would your value-added product sales grow if raw material were available?

Up to 10% | 11-25% | 26-50%

51%-100% | More than 100%

22 How many jobs would be created?

Up to 10 | 11-20 | 21-50

50-100 | More than 100

23 How are the recent changes in Crown royalty rates likely to affect raw material supplies for you?

Not at all | Small impact | Medium impact

Major impact | Don't know

24 Are the new Crown royalty rates fair?

Yes | No | Don't know

25 Are specialty grades royalties fairly priced in relation to lower grades?

Yes | No | Don't know

26 Are there any underutilized species in NB now - i.e. species available but not used or used for lower value products?

Yes | No | Don't know

27 Does any opportunity exist for underutilized species in the raw material mix in your business?

Yes | No | Don't know

Questno	Question

28 Are there species that grow in NB which you can't get?

Yes No Don't know

29 What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between the primary and value-added sectors?

30 What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between the private woodlot and value-added sectors?

31 What opportunities do you think exist, or could realistically be envisioned, for raw material supply partnerships between any other combination of players?

32 Does the WPG have a role to play in developing raw material supply partnerships between any combination of players?

33 What is the likely impact of Native logging on the sector?

34 What impact will forest certification have on your wood supply?

None Could be a problem Major impact

Don't know

Questno	Question

35 Are you considering becoming "Chain of Custody" certified?

Yes No Maybe

Don't know

36 General Comments and Anecdotes

APPENDIX C

NEW BRUNSWICK FOREST PRODUCTS COMMISSION

MAY 29, 1996

ANNUAL SUMMARIES

FOREST PRODUCTS MARKETING BOARDS ESTIMATED ALLOWABLE ANNUAL CUTS AND PRODUCTION REPORTS

000m^3 (1 000 solid cubic meters)

Primary Forest Products - Private Woodlot Sector

Province of New Brunswick

		77/78	78/79	1979/80		1980/81		1981/82		1982/83		83/84	1984/85		1985/86		86/87
FOREST PRODUCTS MARKETING BOARDS		A.A.C.	A.A.C.	A.A.C.	M.A.P.	A.A.C.	M.A.P.	A.A.C.	M.A.P.	A.A.C.	M.A.P.	M.A.P.	A.A.C.	M.A.P.	A.A.C.	M.A.P.	M.A.P.
CARLETON-VICTORIA	SW	110	88	88	100	133	157	176	121	159	200	163	159	172	159	148	156
	HW	59	59	59	61	79	63	163	85	148	92	93	148	91	148	79	131
MADAWASKA	S	110	110	121	125	121	181	128	171	128	168	162	128	146	128	142	123
	HW	59	59	59	30	59	28	119	34	119	23	41	119	40	119	30	26
NORTH SHORE	SW	186	163	163	182	163	214	231	148	231	285	186	231	267	231	200	249
	HW	139	93	93	86	93	105	147	156	147	100	128	147	113	147	61	120
NORTHUMBERLAND	SW	155	130	130	153	130	278	128	223	128	225	203	128	227	137	208	159
COUNTY	H	73	73	73	47	73	60	62	15	62	5	15	62	10	66	12	36
S.E.N.B.	S	11	11	16	17	16	30	190	238	190	135	211	190	198	212	258	211
	HW	0	6	13	8	13	10	130	18	130	0	1	130	0	146	1	13
S.N.B.	S	112	110	223	223	223	213	284	298	284	20	236	284	382	335	400	346
	HW	59	59	79	79	79	4	220	0	220	62	0	220	0	259	2	0
Y.-S.-C.	S	243	199	199	204	204	241	281	323	281	325	219	368	257	368	311	240
	HW	99	99	99	99	99	83	248	109	48	218	145	325	112	325	163	183
TOTALS	S	927	811	940	1004	990	1314	1417	1522	1401	1358	1380	1488	1649	1570	1667	1484
	HW	488	448	475	410	495	353	1089	417	874	500	423	1151	366	1209	348	509
GRAND TOTALS (all species)		1415	1259	1415	1414	1485	1667	2506	1939	2275	1858	1803	2639	2015	2779	2015	1993

1. First received for all NB for '80 (i.e. April 1/80 - March 31/81 included). They do not as yet, in all cases, include volumes of wood exported out of the province, nor produced by other contractors in a Local Board's Regulated Area. They do not include volumes sold to small sawmills and residential markets.
2. Estimated AAC's are only changed when facts change. For 1982 and 1983 areas and inventories, etc. are more accurate then previously. In 1978, 1979, 1980 and 1981, S.E.N.B. represents the Union of Woodlot Owners of South Eastern N.B. Inc.'s members areas. In 1978 and 1979 S.N.B. represents the S.N.B. Wood Co-Operative Inc.'s members areas. In 1978, 1979 and 1980 Y.-S.-C. represents that part of York County north of Saint John River plus Charlotte County Wood Producer's Association's members' areas. In 1980, 1981 and 1982 S.N.B. represents the Regulated Area at that time plus S.N.B. Co-op unregulated area. In 1981 and 1982 Y.-S.-C. represents the Regulated Area at that time (York and Sunbury Counties) plus Charlotte County Wood Purchaser Associations and South Western Forest and Farm's Members Areas. In 1983 S.N.B. represents the Regulated Area at that time plus S.N.B. Co-op Unregulated Area. In 1983 Y.-S.-C. represents the regulated area of York and Charlotte Counties.
3. S.E.N.B. delivered 123 000 m^3 to Irving Organizations in 1982; S.N.B. delivered 301 000 m^3.
4. 1983 - M.A.P. represents estimate volumes based on contracted quantity.

REF: annualsumform.xls

NEW BRUNSWICK FOREST PRODUCTS COMMISSION

JUNE, 2000

ANNUAL SUMMARIES

FOREST PRODUCTS MARKETING BOARDS ESTIMATED ALLOWABLE ANNUAL CUTS AND PRODUCTION REPORTS

000m³ (1 000 solid cubic meters)

Primary Forest Products - Private Woodlot Sector

Province of New Brunswick

		1987/88		1988/89		89/90	90/91	91/92	1992/93		93/94	94/95	95/96	96/97	97/98	98/99	99/2000	2000/01	2001/02
FOREST PRODUCTS MARKETING BOARDS		A.A.C.	M.A.P.	A.A.C.	M.A.P.	M.A.P.	M.A.P.	M.A.P.	A.A.C.	M.A.P.	M.A.P.	M.A.P.	M.A.P.	M.A.P.	M.A.P.	M.A.P.	M.A.P.	M.A.P.	M.A.P.
CARLETON-VICTORIA	SW	167	117	140	126	121	121	136	140	124	69	88	91	114	69	75	76		
	HW	148	120	174	145	167	174	175	220	151	164	178	169	154	114	93	125		
MADAWASKA	SW	140	101	80	135	112	98	97	80	92	69	113	97	90	100	83	88		
	HW	119	47	93	40	47	59	53	93	74	32	26	56	49	48	59	65		
NORTH SHORE	SW	236	301	255	324	347	320	184	255	139	321	559	297	514	301	362	362		
	HW	147	111	229	109	154	149	84	229	126	61	38	151	145	148	151	125		
NORTHUMBERLAND COUNTY	SW	149	219	167	206	181	184	180	169	166	458	224	245	204	134	134	134		
	HW	66	64	84	53	54	59	25	77	5	2	17	35	42	50	62	35		
S.E.N.B.	SW	214	220	320	370	312	262	318	293	329	385	384	418	274	277	309	329		
	HW	146	52	204	51	64	77	33	208	0	5	71	58	82	72	71	72		
S.N.B.	SW	352	341	375	465	356	349	294	365	260	315	380	382	395	320	348	249		
	HW	259	8	345	--	--	7	14	356	3	22	45	42	13	14	7	9		
Y.-S.-C.	SW	383	275	310	301	237	274	208	310	188	185	226	209	240	172	235	203		
	HW	326	181	283	205	234	263	261	283	207	139	207	216	201	146	172	177		
TOTALS	SW	1641	1574	1647	1927	1666	1608	1417	1602	1230	1802	1974	1739	1831	1373	1546	1441		
	HW	1209	583	1412	603	719	788	645	1466	727	425	582	727	685	593	615	608		
GRAND TOTALS (all species)		2850	2157	3059	2530	2385	2396	2062	3068	1867	2227	2556	2466	2516	1966	2161	2049		

NOTE:

VOLUMES: Are for the year shown, beginning April 1st of the preceeding year to March 31st of the current year - in Thousands of Solid Cubic Meters. AAC's are best estimates and are only changed when facts change. Since 1982 areas and inventories, etc., are more accurate than previously. Since 1983 S.N.B. represents the Regulated area at that time plus S.N.B.'s Co-op's Unregulated Area. Since 1983 Y.-S.-C. represents the Regulated Area of York, Sunbury and Charlotte Counties.

M.A.P.: (Minimum Annual Production reported) These reports do not, as yet, in all cases, include volumes of wood exported out of the Province nor produced by direct contractors in a Local board's Regulated Area. They do not include volumes sold to "small" sawmills and residential markets ("small" means: "some smaller Sub-Licensees or sawmills and other mills - that do not have access to Crown Lands") Therefore, this represents minimum reported annual production.

VOLUMES FOR 1982 AND 1983: Were changed following a detailed review.

DISCREPANCIES: In totals are due to rounding.

A.A.C.: (Allowable Annual Cut) No change to A.A.C. between 1992 and 1999.

REF: annualsumform.xls

APPENDIX D

The Wood Export presentation by Derek MacFarlane of the New Brunswick Department of Natural Resources and Energy can be found as Appendix D on the CD-ROM version of this report.

APPENDIX E

The Nova Scotia Registry of Buyers is a comprehensive list of all companies and individuals who buy and sell wood in the province. A copy of the Registry can be viewed and ordered online through the Nova Scotia Department of Natural Resources website at http://www.gov.ns.ca/natr/forestry/registry/default.htm or by telephone: 902-893-6270, 902-893-5652; Fax 902-893-5662 and e-mail regbuyer@gov.ns.ca. The document is quite large and for this reason has been excluded from this report.

APPENDIX F

Companies to be Interviewed
Fibre Study

Company Name	Address 1	City	Contact First	Contact Last	Phone1
Ashley Colter (1961) Ltd.	PO Box 2100	Fredericton	Mike	Thorne	(506) 452-0044
Atlantic Pressure Treating Ltd.	PO Box 338, Sta. A	Fredericton	Yvon	Poitras	(506) 459-7777
Cabinetech Inc. (Radius)	PO Box 1114	Fredericton	Mike	Cashin	(506) 455-0960
Cedar Cabins and More Inc.	1520 Woodstock Road	Fredericton	R. J.	Lloyd	(506) 458-9095
CL Decor	7 Caron street	Saint-Francois	A!	Martin	(506) 992-2189
Colonial Manufacturing Ltd.	385 Wilsey Road	Fredericton	Arnold	Acton	(506) 452-0330
Phoenix Wood Products Inc.	79 Carleton Drive	Nackawic	Aunden	Rae	(506) 575-2255
Saw Creek Fine Furniture	28 Frederick Lane	Fredericton	Ted	Petrie	(506) 454-8169
Specialty Maples	1432 Route # 615	Springfield	Charlie	Curtis	(506) 463-2746
Veneer Products of NB (1981) Ltd.	12 Alpha Street	Napadogan	Mike	Pinnock	(506) 367-2574
Sticks and Stones Manufacturing Inc.	53 Progress Drive	St. Stephen	Tom	McKnight	(506) 465-8877
SWP Industries Inc.	PO Box 100	St. Stephen	Stephen	Crabbe	(506) 465-8888
Eastland Industries Ltd.	PO Box 1001	Minto	Eric	DiCarlo	(506) 327-3321
HTM Industries Inc.	41 Industrial Park Road	Minto	Brian	Whitters	(506) 327-3378
Colonial Fence Mfg. Ltd.	843 Route 124	Norton	John	Rodger	(506) 839-2284
Hunter Lake Lumber	175 Hunter Lake Road	Upper Golden Grove	Tim	Hunter	(506) 847-1488
Hartwood Industries Ltd.	PO Box 4243	Woodstock	John	Young	(506) 375-6998
Majestic Forest Products	10148 Route 105	Beechwood	Vince	DeMerchant	(506) 278-5103
Briggs Engineered Wood Products Inc.	PO Box 1162	Plaster Rock	Dan	Briggs, P. Eng.	(506) 356-9663
D & L Wood Industries Inc.	7 Industrial Park Crescent	Perth-Andover	Dwight	Linton	(506) 273-6442
Alliance Forest Products Joist Inc.	1 Guimond Street	St. Jacques	Robert	St. Martin	(506) 735-3561
Clair Industrial Development Corp./Lattes Waska Lte	14 Second Industrial Avenue	Clair	Daniel	Levasseur	(506) 992-2152
Nadeau Division Shermag Inc.	2425 Commerciale St.	St-Francois-de-Madawaska	J. Guy	Pelletier	(506) 992-2121
Ateliers Arpin Ltee. (Les)	7919 Route 17	Kedgwick-Nord	Helene	Cimon	(506) 284-2849
Clotures St-Pierre Ltee. (Les)	C.P. 1087	Kedgwick-Ouest	Robert	St-Pierre	(506) 284-3036
Groupe Savoie Inc.	251 Route 180	Saint-Quentin	Roland	Dufour	(506) 235-2228
Heritage Flooring Ltd.	115 rue St-Francois	Kedgwick	Andre	Isabelle	(506) 284-2116
Kedgwick Lumber	7365 Route 17	Kedgwick	Jean-Paul	St. Pierre	(506) 284-2744
Eastwind Specialty Veneers Ltd.	185 General Manson Way	Miramichi	Eric	McLenaghan	(506) 627-2700
Miramichi Hardwoods Ltd.	6533 Route 8	Boiestown	Hazen	Hawker	(506) 369-8006
Weyerhauser	1101 Water Street	Miramichi	Chris	Grotterod	(506) 778-2700
Berceuse des Maritimes Inc.	2650 rue du Manufacturier	Tracadie-Sheila	Leo	Malley	(506) 395-6333
Horizon Prefinished Mouldings Inc.	890 Riordon Avenue	Bathurst	Gerald	Blaquiere	(506) 548-9415
Capital Forest Products Inc.	PO Box 609	Bouctouche	Rene	Cormier	(506) 743-8723
Future Doors Ltd.	PO Box 389, RR 1	Notre-Dame	Lionel	Boucher	(506) 576-9769
Goguen Lumber	1599 Route 535	Cocagne	Jean	Goguen	(506) 576-6518
Irving Specialty Products Ltd.	300 Union Street	Saint John	Andre	Beaulieu	(506) 632-7777
St. Anthony Lathing Mills Ltd.	PO Box 1003	St. Antoine	Gervais	Cormier	(506) 525-2248

Companies to be Interviewed
Fibre Study

St. Ignace Wood Truss Ltd.	102 Industrial Street	Richibucto	Ola	Johnson	(506) 523-1344
Glenwood Kitchen Ltd.	191 Main Street	Shediac	Armand	Belliveau	(506) 532-4491
Leby Fixtures & Interiors Ltd.	1180 St. George Blvd.	Moncton	James	Sinclair	(506) 857-8949
West-Wood Industries Limited	249 Parker Road	Scoudouc	Leo-Paul	Leger	(506) 532-0908
Shorewood Furniture Inc.	1617 Melanson Rd.	Greater Lakeburn	Victor	LeBlanc	(506) 857-0726
Green's Logging	198 Route 625	Cross Creek	Sharon	Green	(506) 367-3257
FAB PLUS Inc.	63 rue de la Garde	St. Isidore	Marcel	Noel	(506) 358-2626
Licensees					
JD Irving Ltd.		Saint John	Blake	Brundson	
Valley Forest Products		Nackawick	Ron	Taylor	
Fraser Papers/Juniper Lumber		Edmunston	Gerald	Clavette	
Bowater		Dalhousie	Dan	Blanchard	
Stone Consolidated		Bathurst	Dave	Mason	
Repap		Mirimichi City	Doug	Prebble	
Woodlot Owner Groups					
NB Federation of Woodlot Owners		Fredericton	Peter	deMarsh	
SNB Forest Products Marketing Board		Sussex	John	Levy	
SENB Forest Products Marketing Board		Shediac	Hector	Johnston	
North Shore Forest Products Marketing Board		Bathurst	Frank	Branch	
Northumberland Forest Products Marketing Board		Mirimichi City	Ruby	Dunn	
Carleton-Victoria Forest Products Marketing Board		Florenceville	Bill	Crawford	

APPENDIX G

Key to Wood Supply Spreadsheet

Company #	Company Name
1	Saw Creek Fine Furniture
2	Cabinetech
3	Lattes
4	Heritage
5	Cloture St. Pierre
6	Groupe Savoie
7	Future Doors
8	Goguen Lumber
9	St. Anthony Lathing
10	St. Ignace Wood Truss
11	Westwood
12	Capital Forest Products
13	Eastwind
14	Weyerhauser
15	HTM Industries
16	Sticks & Stones
17	Cabinets & More
18	APT
19	Panels & Veneers
20	Shorewood
21	Specialty Maples
22	Veneer Products
23	Miramichi Hardwoods
24	Ashley Colter
25	Colonial Fence
26	Hartwood Industries
27	D&L Wood Industries
28	Briggs Engineered Wood
29	Majestic
30	Phoenix Wood Products
31	SWP Industries
32	Colonial Fencing
33	Hunter Lake Lumber
34	CL Décor
35	Alliance Assurance
36	Kedgwick Lumber
37	Atelier Arpin
38	Horizon Pre-finished Mouldings
39	FAB PLUS
40	Berceuse des Maritimes
41	Green's Logging
42	Fawcett
43	ML Wilkins
44	Sparkes
45	Shermag
46	Eastland Industries

Wood Requirements
Company:
Date:
Units (m3 or MFBM)

Species	Green	Air Dry	K/D	Total	Tenure: CR	IF	PW	NB	NS	PE	QC	ME	OT	Source	All you Could Use (% more)	All you Could Use (Volume)	Anticipated in 5 years
Lumber																	
S-P-F Dimension R/L	6350000	0	42000000	48350000											29%	14255000	
2x3	0	0	0	0												0	
2x4	250000	0	270000	520000											0%	0	
2x6	0	0	320000	320000											0%	0	
2x8	0	0	0	0												0	
2x10	0	0	0	0												0	
SPF Boards (10-15% Util & Btr)	80000	0	5168000	5248000											13%	672000	
Total Softwood Lumber	**6680000**	**0**	**47758000**	**54438000**											**30%**	**16127000**	**0**
White Pine																0	
Select	350000	0	3750000	4100000											0%	0	
1&2	500000	0	725000	1225000											69%	845000	
#3	7500000	0	7505000	15005000											20%	3015000	
#4	0	0	0	0												0	
#5	0	0	0	0												0	
Total White Pine	**8350000**	**0**	**11980000**	**20330000**											**23%**	**4685000**	**0**
Red Pine																0	
Select	0	0	0	0												0	
1&2	0	0	0	0												0	
#3	0	0	750000	750000												0	
#4	0	0	0	0												0	
#5	0	0	0	0												0	
Total Red Pine	**0**	**0**	**750000**	**750000**											**0%**	**0**	**0**
Cedar	0	0	2792000	2792000											21%	588000	
Hemlock	0	0	0	*0*												0	
Tamarack	0	0	0	*0*												0	
Total Other Softwood	**0**	**0**	**2792000**	**2792000**											**21%**	**588000**	**0**
Total All Softwood	***15030000***	***0***	***63280000***	***78310000***											**27%**	**21400000**	***0***
Yellow Birch																0	
4/4 SEL/Btr or FAS	0	0	255000	255000											100%	255000	
#1 Common	425000	0	425000	850000											5%	43750	
#2 Com/#2ACom	0	0	0	0												0	
#3 Com/#3ACom	0	0	0	0												0	
Mill Run	0	0	500000	500000											100%	500000	
8/4 SEL/Btr or FAS	0	0	0	0												0	
#1 Common	0	0	0	0												0	

Wood Requirements
Company:
Date:
Units (m3 or MFBM)

Species	Green	Air Dry	K/D	Total	Tenure					Source					All you Could Use (% more)	All you Could Use (Volume)	Anticipated in 5 years
					CR	IF	PW	NB	NS	PE	QC	ME	OT				
#2 Com/#2ACom	0	0	0	0												0	
#3 Com/#3ACom	0	0	0	0												0	
Mill Run	0	0	0	0												0	
Total Yellow Birch	**425000**	**0**	**1180000**	**1605000**											**50%**	**798750**	**0**
White Birch																0	
4/4 SEL/Btr or FAS	0	0	16310000	16310000											1%	180000	
#1 Common	0	0	37500	37500											100%	37500	
#2 Com/#2ACom	1000000	0	0	1000000											100%	1000000	
#3 Com/#3ACom	0	0	0	0												0	
Mill Run	0	0	0	0												0	
8/4 SEL/Btr or FAS	0	0	0	0												0	
#1 Common	0	0	0	0												0	
#2 Com/#2ACom	0	0	0	0												0	
#3 Com/#3ACom	0	0	0	0												0	
Mill Run	0	0	0	0												0	
Total White Birch	**1000000**	**0**	**16347500**	**17347500**											**7%**	**1217500**	**0**
Hard Maple (White)																0	
4/4 SEL/Btr or FAS	0	0	972500	972500											31%	305000	
#1 Common	0	0	1317500	1317500												0	
8/4 SEL/Btr or FAS	0	0	0	0												0	
#2 Common	0	0	0	0												0	
#3 Com Sel for colour	0	0	0	520000												0	
Total Hard Maple (White)	**0**	**0**	**2290000**	**2810000**											**19%**	**530000**	**0**
Hard Maple (Unsel. For colour)																0	
4/4 SEL/Btr or FAS	0	0	55000	55000											100%	55000	
#1 Common	425000	0	487500	912500											94%	860000	
#2 Com/#2ACom	5000000	0	0	5000000											60%	3000000	
#3 Com/#3ACom	1500000	0	0	1500000												0	
Mill Run	4000000	0	500000	4500000												500000	
8/4 SEL/Btr or FAS	0	0	0	0												0	
#1 Common	0	0	0	0												0	
#2 Com/#2ACom	0	0	0	0												0	
#3 Com/#3ACom	0	0	0	0												0	
Mill Run	0	0	0	0												0	
Total Hard Maple (Unselected)	**10925000**	**0**	**1042500**	**11967500**											**37%**	**4415000**	**0**
Total Hard Maple	**10925000**	**0**	**3332500**	**14777500**											**33%**	**4945000**	**0**

Wood Requirements
Company:
Date:
Units (m3 or MFBM)

Species	Green	Air Dry	K/D	Total	Tenure CR	IF	PW	NB	NS	PE	Source QC	ME	OT	All you Could Use (% more)	All you Could Use (Volume)	Anticipated in 5 years
Soft Maple															0	
4/4 SEL/Btr or FAS	0	0	0	0											0	
#1 Common	240000	0	50000	290000										88%	255000	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
8/4 SEL/Btr or FAS	0	0	0	0											0	
#1 Common	0	0	0	0											0	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
Total Soft Maple	**240000**	**0**	**50000**	**290000**										**88%**	**255000**	**0**
Red Oak															0	
4/4 SEL/Btr or FAS	0	0	37562500	37562500										0%	62500	
#1 Common	240000	0	248750	488750										67%	328750	
#2 Com/#2ACom	500000	0	0	500000										100%	500000	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
8/4 SEL/Btr or FAS	0	0	125000	125000											0	
#1 Common	0	0	0	0											0	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
Total Red Oak	**740000**	**0**	**37936250**	**38676250**										**3%**	**1016250**	**0**
White Oak															0	
4/4 SEL/Btr or FAS	0	0	150000	150000										300%	450000	
#1 Common	0	0	0	0											0	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
8/4 SEL/Btr or FAS	0	0	0	0											0	
#1 Common	0	0	0	0											0	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
Total White Oak	**0**	**0**	**150000**	**150000**										**300%**	**450000**	**0**

Wood Requirements
Company:
Date:
Units (m3 or MFBM)

Species	Green	Air Dry	K/D	Total	Tenure CR	IF	PW	NB	NS	Source PE	QC	ME	OT	All you Could Use (% more)	All you Could Use (Volume)	Anticipated in 5 years
Poplar															0	
4/4 SEL/Btr or FAS	0	0	0	0											0	
#1 Common	0	0	5000	5000										100%	5000	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
8/4 SEL/Btr or FAS	0	0	0	0											0	
#1 Common	0	0	0	0											0	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
Total Poplar	**0**	**0**	**5000**	**5000**										**100%**	**5000**	**0**
White Ash															0	
4/4 SEL/Btr or FAS	0	0	4500	4500										100%	4500	
#1 Common	80000	0	37500	117500										100%	117500	
#2 Com/#2ACom	250000	0	0	250000										100%	250000	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
8/4 SEL/Btr or FAS	0	0	0	0											0	
#1 Common	0	0	0	0											0	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
Total White Ash	**330000**	**0**	**42000**	**372000**										**100%**	**372000**	**0**
Beech															0	
4/4 SEL/Btr or FAS	0	0	0	0											0	
#1 Common	0	0	1250	1250										100%	1250	
#2 Com/#2ACom	250000	0	0	250000										100%	250000	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
8/4 SEL/Btr or FAS	0	0	0	0											0	
#1 Common	0	0	0	0											0	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
Total Beech	**250000**	**0**	**1250**	**251250**										**100%**	**251250**	**0**

Wood Requirements
Company:
Date:
Units (m3 or MFBM)

Species	Green	Air Dry	K/D	Total	Tenure CR	IF	PW	NB	NS	Source PE	QC	ME	OT	All you Could Use (% more)	All you Could Use (Volume)	Anticipated in 5 years
Cherry				0											0	
4/4 SEL/Btr cr FAS	0	0	0	0											0	
#1 Common	240000	0	47500	287500										131%	377500	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
8/4 SEL/Btr or FAS	0	0	0	0											0	
#1 Common	0	0	0	0											0	
#2 Com/#2ACom	0	0	0	0											0	
#3 Com/#3ACom	0	0	0	0											0	
Mill Run	0	0	0	0											0	
Total Cherry	**240000**	**0**	**47500**	**287500**										**131%**	**377500**	**0**
Total Hardwood Lumber	***14150000***	***0***	***59092000***	***73762000***										**18%**	**13188250**	***0***
Hardwood Panel Products	0	0	0	0											0	
Hardwood Veneer Panels	0	0	0	0											0	
MDF	0	0	20500	20500											0	
OSB	0	0	1093750	1093750											0	
Melamine 1/2 & 5/8"	20000	0	0												0	
Melamine 3/4"	0	0	650	650											0	
Melamine 1"	0	0	0	0											0	
Particleboard	2500	0	5000	7500											0	
Hardwood Plywood	0	0	18150	18150											0	
Softwood Plywood	0	0	0	0											0	
Components Doors	75000	0	0	75000											0	
Components Cutstock	0	0	0	0											0	
Components Other	0	0	0	0											0	
ROUNDWOOD SAWLOGS (m3 or mfbm)	**#1**	**#2**	**#3**											**All you Could Use (% more)**		**Anticipated in 5 years**
SPF	252846	96400	3600	352846										10%	33686	
White Pine	3480	0	286000	289480											0	
Red Pine	1300	400	0	1700										94%	1600	
Cedar Fencing	27600	0	0	27600										10%	2640	
Cedar Sawlogs	87000	0	0	87000										1%	440	
Larch	320	0	0	320											0	
Hemlock	5320	400	0	5720										28%	1600	
Other (specify)	11750	0	0	11750											0	

Wood Requirements
Company:
Date:
Units (m3 or MFBM)

Species	Green	Air Dry	K/D	Total	Tenure					Source				All you Could Use (% more)	All you Could Use (Volume)	Anticipated in 5 years
					CR	IF	PW	NB	NS	PE	QC	ME	OT			
Total Softwood Sawlogs	**389616**	**97200**	**289600**	**776416**										**6%**	**47198**	**0**
Hard Maple	11418	0	8000	19418										14%	2804	
Soft Maple	190	0	4000	4190											0	
Yellow Birch	12508	0	8000	20508										10%	2000	
White Birch	5240	0	4000	9240										216%	20000	
Red Oak	0	0	0	0											0	
White Oak	0	0	0	0											0	
White Ash	264	0	0	264											0	
Poplar	50800	0	350000	400800											0	
Other (specify)	8500	0	192000	200500										1%	2550	
Total Hardwood Sawlogs	**88920**	**0**	**566000**	**654920**										**120%**	**783610**	**0**

Company:

Representative:

APPENDIX H

Appendix H Comments from Value Added Interviews

Question 8: What are your overall raw material requirements at the present time?

Question 9: Where do you get your wood from today?

Question 10: Where do you get the material today (source)?

Here are some of the direct quotations and observations from interviewees in relation to the overall requirements and sources of wood. They are combined as often the responses flowed between questions.

- One member indicated that 12% of his lumber comes from Private Woodlots which is produced by 19 portable sawmills which cut lumber right on the woodlot for company. This has proven to be the most effective way of ensuring that this wood doesn't escape from the province unprocessed.

- Difficulty getting melamine as plants are at capacity, most of the output goes to the US, distributors are on quotas, priority to largest orders

- Total volumes are OK-species mix is a problem-lots of demand maple demand

- This sawmill which makes lumber for value added customer, particularly pine, has been losing a bit of supply each year from private woodlots which means more is needed from another source

- Machine Stress Rated (MSR) lumber makes up 25% of this truss manufacturer's demnad, but he can't buy this in NB as no one is selling it on the local market. This has to come from Quebec.

- Cabinet manufacturers are buying doors from companies like Poirier in Grande Digue and Future Doors in Notre Dame, if we could get NB wood to these guys, we could get lots of NB wood to NB cabinet manufacturers as most don't make much of their own doors.

- People making structural or engineered wood products who use SPF only can use black Spruce due to mechanical properties. The rest of the species in SPF are useless.

- Tough to get colour select white maple, good 2 sides these days

- The A-2 pine plywood found here comes from outside the province and is not the same as the same grade in Ont. The companies are cheating on the grade for customers in the Maritimes.

- One company who has a small saw and kiln needs only 30,000 fbm annually of curly red maple can only uses veneer quality logs, first or second log only in his process. He has to compete

with Veneer buyers for the logs. Has got virtually nil form the allocation, in the last 3 years has only got 8 logs from the small Crown allocation. He has paid upwards of $5 per foot for that wood, very costly

- This company needs 250,000 fbm/yr of hard maple only, and it doesn't need to be in any long lengths. He looks for downfall (or waste) from other operations. He can pay landed $1000/mfbm at top end, and he can't operate for less than this. If he has to pay going price, can't make it pay. He really needs to continue to buy the shorts/downfall from other operations.

- The company needs 500,000 fbm eastern White Pine "mill run", he can use everything from top to bottom grade. He seems to be able to get all his wood in NB

- One flooring company which uses only 850,000 fbm #2&3A Com hard maple has had to turn down $500,000 of orders recently due to a lack of lumber availability. Unless the wood is there, it is impossible to book future orders. He currently buys from 4 sawmills and still can't get nearly enough wood for his operation.

- One company who uses yB for making rolling pins recently had to switch to white ash due to lack of supply.

- One company looking for cedar who operates a sawmill and value added plant together said that the wood is there on the allocation, but he can't get it. He isn't allowed to go into a block "green", he can only go in as a salvage operation, cedar is a second class species

- NK Lumber in Stickney, NB is an interesting company for supplying value added companies

- One company needs high interior quality MDF (about 4,000 sheets annually), and only uses Ranger MDF which is made in Whitecourt, Alberta. Canwell distributes it. The characteristics of Ranger for finishing is the very best. He has never tried Flakeboard yet. The interior characteristics are the critical element of the MDF he needs as he moulds or patterns the sheet using a CNC machine. He needs MDF coated with black vinyl but can't find it.

- Wood supply has been a problem.

- A specialty sawmill stated that there is not enough wood now, cash flow sequencing. No access to Crown wood, and big companies have so much power

- One pine manufacturer buys from a sub-licensee sawmill which buys 78% private woodlot, 22% Crown from sub-licensee allocation. This is how the sub-licensee has met the DNRE value added policy of 1997.

- One company which operates a primary hardwood mill attached to a processing facility feels that on the Crown tree length logs, there are good logs cut out first before the rest hits this operation

- I have no idea where the wood comes from, I just buy lumber from my broker.

- One hardwood sawmill said the split for his operation was supposed to be Crown-40%, IF-40%, Private Woodlots 20%. Last year it was about 20-20-60. Only got about half the Crown allocation, the Licensee said the wood wasn't available.

- One manufacturer which operates a recently added small log sawmill indicated that logs come 80% from IF, 20%PW. Buying mostly green lumber & logs, but will supplement with KD when needed. Lumber comes from everywhere, NB (75%), NS, US, QU, ON, and from the free market for Private Woodlots so far, haven't got to the point where ready to approach a board yet

- One company that buys softwood and cedar lumber for his process stated that he has developed an excellent relationship with suppliers over time because of a rapid pay system which keeps things moving well

- Another who buys logs for conversion and further processing PW comes either through the Mktg Boards or direct from the contractor. The boards will not do volume deals, but price and levy is negotiated.

- The Crown portion of the wood supply has dwindled over time, use it or lose it over, the allocation has declined over time

- One company that makes finished accessory hardwood board products buys boards and edge glued panels from NB suppliers.

- A large furniture operation gets supply from its own sawmill operation outside the province, and said there is better price control from own operation, this ownership makes all the difference in the world

Question 11: What do you think your wood requirements be in 5 years?

Some individual observations from the interviews:

- One large integrated hardwood sawmill/value added company said demand in 5 years should be about the same level as today. There is no way to grow in volume, therefore we have to improve value added, introduce new products and processes.

- One softwood sawmill just created 12 more jobs by putting a bit more wood through, it is very important to note that that extra wood creates more jobs immediately vs. larger mill which absorbs it with no employment impact. Future investments should generate more yield per m3 which is the key to better utilization.

- One manufacturer said that supplies are marginally adequate right now, but a very delicate balance exists. Demand could double at least in 5 years, split 50:50 but with some other

species possibilities. He set up own primary breakdown because he couldn't get what he needed when he needed it, by species and grade which forced the issue. It has had a lot of price stability but not reduction.

- One company stated that they put in a new mill in January, didn't work properly at first. Same requirements over time, maybe even less in the future. Now the grades are moving to a higher face grade yield.

- This company is adequately supplied today with cedar lumber, could easily double the supply if he needed to as he pays high prices immediately on delivery.

- One primary/secondary integrated operation stated he needs to keep well stocked. Without speculation of inventory, there is no profit. There are seasons which you have to stockpile. There efficiencies in mfg. which can benefit operations.

- A large integrated company stated they have satisfactory supply, but certain products they still have to buy. The company will look at doing more products when the opportunities present themselves.

- One sawmill doing mouldings and specialty items said wood requirements could triple in five years. He currently, can't get enough wood, cedar is the biggest problem, and hardwood is becoming a problem. At present he feels he could use twice the wood he is getting.

- A maker of hardwood rolling pins and kitchen accessories said there is not enough wood for the rolling pins, but for panels it has been OK. Pricing is so critical, need to get the price and supply. The company has now "tapped out" the first supplier of yellow birch, and is looking hard for an additional supplier. The company is number 2 in N.A. for rolling pins. Right now, they could use about 25% more wood then is available. Could be double the wood demand in 5 years.

- One producer of engineered products said he is short on slow grown northern black spruce by about 10%. In 5 years, would need 30%. He runs 11 shifts of 12 hrs per week, could add at least 3 or 4 more shifts in 5 years if he has the wood.

- This producer of cedar lathes and posts is now short 20%. In 5 years, the demand will stay the same, but the wood will become much more difficult to obtain

- One custom cabinet and millwork shop which is integrated back to a primary sawmill has enough wood now. He commented that he only needs a bit of wood to create lots of economic activity. He will need about 15% more in the future, and would love to have this from the Crown (he is a Licensee). This would create 4 new jobs.

- One producer of prefinished mouldings could use double the wood in 5 years. He has 9 employees now, could create 10 more jobs minimum

- This producer of custom cabinetry from MDF could use double the panels in 5 years. He has 17 people, would need 17 new guys on top of that.

- This custom furniture guy could use at least triple the wood (yB, sM) in 5 years time.

- This stud mill says supply is OK today, but you never know what the supply will hold year to year from woodlots and imports. Wood requirements will stay the same in 5 years time, but efforts will go to improving yields.

- This dimension SPF lumber mill says he never runs out of wood but it is tight. There will be no change in demand in 5 years time, investments will improve yield and gross profit.

- This hardwood sawmill could use 30% more hardwood now and in 5 years time, less hemlock.

Question 13: Can you use finger joint stock, waste etc, that is: do you see any opportunities to use /benefit from some other plant's waste stream?

Comments include:

- One lathe company said not now, but could be in the future bagging mulch for export and might need someone else's waste to meet demand, and to get the right mix of materials (species)

- A furniture plant has a finger joining study ongoing in QU-could be diverting waste to this in the future. Chips go to Quebec-no known end use now. Project with UdeM Edmunston for value added on waste, and FORINTEK is involved.

- An integrated hardwood sawmill/value added company said no opportunity-waste disposal is an issue. Finger joining was tried, but it didn't work for component stock. Don't try to work with material that isn't considered decent quality, can't make good products from crummy raw materials.

- A cabinet door company said not now-there are always possibilities, but the technology issue may be a constraint.

- An integrated RTA pine company says he currently runs a finger jointing line-could be expanded but the prices are so bad now that there is little sense expanding. Need to use high quality but low value due to market materials as input to fingerjoining line to make it economic-also need a large scale operation unless the wood is "free" coming into the plant.

- One company uses shorts from a value added operation and make specialty products from that.

- One company said no, but he does use chips and bark from Weyerhauser for boiler.

- On multi-softwood product company said there could be an opportunity to take some other plant's waste stream i.e. poplar from HTM but need consistent supply (quality, volume).

- One furniture company said no finger joint, be he use shorts from other companies i.e. shorts from flooring companies, panels, i.e. Northern did some panels

- A softwood dimension company said the only thing could be more mulch, main goal now is to get rid of their own waste

- One pine component company could use shorts but is trying to sell his fingerjoining equipment now as it hasn't been economic.

- A hardwood panel producer has bought some waste edging from flooring plants, but hasn't worked out great. With some fine tuning, we could see some long term benefits, but suppliers then either jack price or try to do more themselves.

- This specialty furniture company said no but they can use short pieces (yB, sM) as the longest piece is 44", so he is interested this type of material.

- All the sawmills with no value added lines said that the problem was the opposite-had to try and find markets for waste which can't be used by the pulp & paper mills.

Question 14: Have you ever tried to source material for outside the province?
Question 15: Do you plan to source wood from outside the province in the future?

These two questions have been combined for easier interpretation. Direct comments include:

- A RTA furniture & fixtures company said he can't source anything from Flakeboard as there is no stocking distributor in the Maritimes. If the order is less than truckload, he can't buy direct, greater than truckload OK.

- Several companies in various aspects of the business indicated that they have tried to source materials from outside the province in the past (mostly hardwood or cedar logs) in the past, but have given up because transportation costs are too high.

- Yes-maybe if the price is right.

- If the need is there, he may have to if private wood is not available

- I have no choice if I want to keep running at current levels.

- If I get desperate enough, I will import logs.

- I would but it is just too expensive.

Question 16: What are your biggest constraints in getting raw material now and how can these be overcome

The following is a summation of the comments:

- A small cabinetry shop stated that there is a shortage of production for panel products-look for other suppliers and bundle orders with other buyers-never have tried to buy NB lumber-would love to have access in small quantities.

- A lathe/fencing company says Crown allocation is the biggest issue for the company today - look more closely at the players in the game now, don't allocate new wood to new players.. May need to consider a virtual license for getting access for value added companies.

- A hardwood product manufacturer can't get enough now, and he can't get this allocation of hard maple from the Crown/sawmill. A company needs money to buy directly from the sawmill, you have to have cash, 10 days at most is what they will give you. When the market is hot its tough to get any wood. The operating facility (line of credit) is 50% less anything that is 30 days, a company needs cash to operate. If the bank could consider the maximum of 75% of finished goods plus 50% inventory plus receivables- to a max it would be helpful. If the gov't would change the policy to allocate more wood to companies making value added as first priority for supply. It makes no sense to have 50% increase in raw material costs in 2 months. Need to have an annual contract negotiation with sawmill based on allocation.

- A cedar-poplar-birch user with primary sawmill capability says quality of logs from Crown is terrible due to veneer to Nelson, Groupe Savoie for sawlogs, the rest for you due to regulations. Private woodlot wood is getting harder to buy due to US market. No quality control on the logs. The regulations need to change to allow company to make decisions on each piece of wood. Could it be possible to introduce regulations to restrict roundwood exports? Trucking is the main problem need to find a way to keep the wood here!

- An integrated hardwood sawmill-value added company indicated that getting lumber for the value added operations is not a major problem as they control their own supply. Crown roundwood dealing with the government is a major undertaking as it takes a long time to get the harvest blocks approved, drives the costs up. Need to streamline the process. He deals 3 Licenses, 2 DNR offices and finds there is no consistency. The regs are not the problem, its the mechanics of the system.

- A cabinetry company says be buys most lumber from a broker. All in all, things are pretty good, quality can be a problem at times. The oak comes direct from the sawmill, but for the most part delivery schedules are usually met. Can't get NB wood though, only through a broker from outside the province.

- A sawmill supplying value added mills with SPF dimension and ewP says he doesn't take tree length logs, and that is a problem when it comes to getting the wood from the private woodlots. May have to go to tree length in the future. Woodlots are harder to get access to,

longer roads, etc. There is no contract with the Marketing Board now, open price, open volume, but the Board wants to put all wood through the Board to collect the levy. Many private wood producers resent that.

- A value added pine company with no primary sawmill says getting access to Crown pine in form needed is critical. The wood must be sawn to specification with minimal waste. This problem of not getting what you need could be overcome by awarding the allocation to the manufacturers instead of the sawmills-then let the sawmill be chosen by the manufacturer based on the ability to meet the spec and operating efficiency.

- An engineered wood product manufacturer has tried to buy NB wood and does get all he can, but it is not available. The best SPF wood seems to be going to the US market. He needs longer lengths, KD and it is not available. He hasn't found any MSR 2x6 14' or 16' in NB-no one is making it to his knowledge. Ironically, the wood that has the MSR mark is often not as high in quality as the same dimension bought in NB, but he needs the stamp in order to use the wood in his process.

- A reman company which uses SPF (mostly Spruce) buys from lumber mills. The key is finding out what people have and what people want for the product. At times he needs to find wood quickly, and it can be a problem if he doesn't know where the wood is.

- Another reman company says it can be tough to get logs when the prices are high. Some sawmills are also gearing up with reman-so this can be a problem to find the shorts. As lumber slows, its easier to get the material. In the long term, form an association with a mill to guarantee a price and supply.

- A producer of high end materials for manufacturing says he can't get local material. Distance from his suppliers is therefore a problem. Need fresh stock 2-3 weeks old in the summer, can last up to 3 months in winter. Local hardwood mills can't supply any high grade materials because the contracts with brokers usually specify mill run so they get everything the company produces. Crown allocation has everything from lowest to highest grades. There is a need to have a plan or strategy to explore all aspects of the wood industry, and get the small volumes of high quality material to companies like this who make the high end stuff.

- A large board plant says competition for private woodlot wood is now a major problem. Need to move to tree length which would allow the mill to take a broader range of products. Currently have supply contracts with Boards going through the boards with some few exceptions. Most of the individual contracts are now with contractors from outside the province. Free market wood, leave it as such, and give the woodlot owner incentives to manage the property (tax breaks, forest management funding, etc.).

- A kitchen cabinet manufacturer indicates that hardwood lumber availability is very low-it is very tough to get it today-and the NB hardwood beyond birch just isn't there.

- An integrated hardwood sawmill/value added company said he has a major problem getting the Crown allocation. If he got his full amount from the Crown, then could scrounge enough up from private sector. The company is being as aggressive as possible but you have to have the cash to buy when wood is available.

- A small sized furniture company looking primarily for ewP said finding the wood is not a big problem, but grading is an issue which has caused him to reject a lot of material.

- A cabinet shop said it is very difficult to get consistent grade materials (hardwood). What we call FAS, Quebec looks at it a bit differently. The grades here are very low. There is a need for BW2 grade. Could possibly get the grade and price locally, but just can't find anyone who has it, and can't afford the time to go looking-so they order from a broker.

- A prefab cabin/shed manufacturer says sufficient supply of the quality of SPF mostly spruce and hemlock squared timbers required is not consistent. Trying to meet with the timber suppliers to set up a long term contract arrangement, enter into a buying arrangement in buying the logs to convert into the materials. The market is so good that suppliers don't need to cater to the end user much.

- A reman company says just getting access to adequate supply is the first issue, then grade is the next consideration. The company has to go farther afield to meet supply.

- A high end custom millwork shop said finding specific grades particularly of the solids is tough. Quality problems relate to quality grades. Recently sent back about $50,000 of wood. They buy everything from wholesaler (Goodfellow mostly).

- A hardwood furniture company says quality and prices are the biggest problems-often times the grade is not what was purchased. 1 Com has too much brown.

- A hardwood specialty company looking for curly red or birdseye maple can't get at the allocation from the Crown-it is not possible. Veneer Products gets the logs and they are supposed provide him with his portion, but it hasn't worked out well. There is so little of this wood around, and for many it is hard for them to sort it out. Need to go onto the cut block first, and remove the selected trees first before the rest of the area is logged. That is the only way to get the logs on a Crown operation.

- A producer of high end materials for manufacturing says there is a desperate need to combine processing and merchandising trees. No differential between ownership, but this is a big issue. If every hardwood log from Crown had to go to a merchandising yard first before processing, then sorting took place, availability of high grade logs would increase 5 fold, and quality would increase. Accurate scale is achieved, DNRE gets full value for royalty, nothing left unscaled or unaccounted for. Otherwise DNRE must prevent processors from touching hardwood logs.

- A hardwood sawmill which also does components says access to the Crown allocation of hardwoods is a major issue. Demand for hardwood logs exceeds supply due to the export market for Industrial Freehold and Private Woodlots. Crown is difficult because the supply of logs is controlled by companies with the same type of demand. On Private Woodlots, a load slip system is needed to slow the wood theft and exclusion from levy problems, and to monitor exports.

- An SPF softwood dimension and reman company said the security of supply from Private Woodlot source is a huge issue. Price is the driver, and its tough to get any commitment to supply. Would like to negotiate supply contracts, but on the price side they go for he best market only. On the Crown allocation, there are major concerns over the small size of logs, but the wood costs are squeezed by the larger scale operations. The Crown wood is not cheaper when all things are taken into account.

- A custom millwork shop using hardwood and ewP says he has no major constraints now-but difficult to get reliable NB supply. He uses a wholesaler for sourcing lumber from outside NB.

- A custom hardwood operation which needs KD sM shorts says cash flow is a major issue. He needs to be able to buy on the spot as the market is volatile, and when wood is available, he needs to be able to move fast. Only needs an operating line

- A pine panel company says the wood is there, but just can't get the supply organized. Need to buy logs now and contract for the sawing. Need to have NB wood processed here, pure and simple. One of the 2 biggest licenses for pine has his own pine operations and is in competition for the wood, while the other doesn't use it internally.

- A hardwood panel producer says there is lots of competition for logs, need to find something that already doesn't have a home. He backward integrated into a primary sawmill, has processed shorter pieces which has worked well with a licensee. Private woodlots it is the same thing, it is an education process to show them what he needs so that a systematic process can be developed. He has bought lots of short logs from "stove wood" operators and paid them as much or more than the guy would have received for it as firewood. On the lumber side-there are 3 or 4 big wholesalers which are tied to the individual sawmills, so that this material is unavailable. The wholesaler wants to sell KD lumber, this is not what his company wants. The individual mill can't sell outside the contract, so the control of the local hardwood mill isn't in the decision process. The absence of grading process at the local hardwood mill is a major constraint.

- A hardwood flooring plant indicates that the wood is not available, there are no allocations for value added directly. He can't see why there can't be an allocation to someone other than a sawmill. There needs to be some way of getting logs on a fair chance at fair market value. If the allocation goes to the end user, then he has the right of first refusal and with a reporting system, it will catch the abuser by a checking system. Within the province no one really knows just what is happening.

- One integrated sawmill-value added company which uses cedar and SPF says timing of delivery, due to the seasonal nature of wood operations (particularly cedar) is a very big constraint. They have developed an inventory building/draining strategy to smooth out the valleys. This requires that a lot of cash must be tied up in log and lumber inventories at certain times of the year.

- Another integrated sawmill-value added company which uses mostly cedar says competition for the limited resource is his biggest problem which makes getting wood now very difficult. Crown allocation-trying to get back to where they were in 1982. Crown has a use it or lose it approach to allocations. For example, the spec is low (3"top) but couldn't get at wood from another operation with a tighter spec 7" diameter, 400 cords were lost before he could get there.

- An integrated sawmill-value added company said that most people have the system tied up so they don't necessarily want to deal with a new entrant. He is trying to make direct deals with sawmills for dimension stock. If he could get a ready supply of blocks, he would sell the wood miser and concentrate on making the value added products only.

- A value added hardwood rolling pin company said getting yB and the prices are the biggest constraints now. He has to try and find a cost effective his main supplier from Quebec. He is using W Ash as a substitute which will also be sourced from outside NB.

- An engineered structural products plant needs to have dry, high density of wood which is very hard to get. In the middle of some research into lower quality wood for different non structural market. With OSB, the price is the problem limiting purchase of more NB, the quality is fine.

- A cedar shingle manufacturer says availability of cedar is low, and planning cut blocks is very difficult as cedar is a low priority species

- A custom millwork shop with own sawmill and Crown allocation says he can't get a supplier to give him the quality of lumber he needs. His sawmill here gives him protection for the future. He has a major concern that no hardwood silviculture is taking place.

- A custom RTA panel company has a major problem with getting high enough quality MDF on the density side. There is only one company which makes a MDF sheet which can be machined and moulded with the CNC machine and not fall apart.

- A custom hardwood and cedar sawmill says the biggest constraint is adequate working capital-log prices are so high, it is very hard to buy. Truck loads of private woodlot wood go by the door of the mill, but they can't get the wood because they need to have cash-this is a sellers market.

- A stud and SPF component mill says the biggest constraint is that there is no guarantee of supply from the Marketing Boards (price or volume). Contracts are open price, open volume.

This means that while the company buys from Boards, there is no tenure of supply whatsoever. Since the Boards have no control over the members, what purpose do they serve to the sawmill industry. There is no quick answer but there may be a need to look at some new kind of model to make things work. One thing they have done to capture their share of the market is they have tied the scaling system into the accounting system so the trucker gets his cheque before he leaves the yard.

- A dimension mill says his biggest constraint is competition for the resource. Boards are a major problem as they only negotiate open contracts (price, volume). He tightened his to 5" top from 4", and the market has responded well.

- A hardwood sawmill said there are just no logs left, and what is around is so tempting for the wood thieves that it is nearly impossible to compete for this wood.

Question 17: What locally-produced raw material do you need that you cannot now obtain? What species, grades, dimensions, etc. are most affected?
Question 18: Where is this raw material currently going? Why can't you get this wood?

The following are some specific comments on these subjects:

- All species, all grades-most affected is maple.

- Poplar for price, and competition locally.

- Yellow pine and Douglas Fir

- Pretty well everything-no kilns, flow of hardwood is out of the province. Some wood coming in from wholesalers may be NB wood, can't tell. Oak is out of the question.

- Private woodlot wood is the most difficult to find. Woodlot owner may benefit by having a better scale even if the price is lower so it can work out well for the owner, but unless the sawmill can get that info to the woodlot owner, it is impossible to get by the trucker.

- Poles and FSA certified wood-only one open market source right now in this region.

- Materials planning is not a problem with long enough lead times, but it can be a big problem if situation is rushed

- Pine can't buy locally, have to go to the brokerage market to get this as there is no reliable supply of the pine. The delivery schedule is very easily obtained this way.

- Can't find a good quality supplier of veneer products sheets.

- Wood is going to Quebec-matter of kilning the product, competition is such that the existing suppliers can't get the wood to him.
- Wood is going to other mills who take tree length.
- Not enough ewP in the province, it is in short supply-old growth is now gone cutting second growth now-smaller piece sizes-this affects quality
- US for SPF MSR not available n NB from NB companies.
- Brokers are getting all the hardwood, then we have to buy it back from out of province wholesalers.
- No matter where the wood is going, and what products are in short supply, fair competition is to be protected as a standard principal.
- Round logs are either going to waste or are being exported.
- The NB-QU-ME trade. A local hardwood sawmill who can supply some of his needs, but need more than one mill to deal with the various production that happens i.e. he saws maple for a month, customer needs birch now.
- Its an open market, lots of logs being shipped out to the US in raw form, exchange rates are critical.

Question 19: Have you had any shutdowns or "bottlenecks" due to raw material shortages in the last 18 months?

It was also clear that some shutdowns or bottlenecks due to raw materials shortages arose because the company had insufficient resources to buy when the materials were available. Here are some of the comments:

- Should have but didn't due to working other things. There is a need to get employees involved in lobbying for more Crown wood, as it is their livelihood at stake.
- Haven't shut yet, but the price is very scary now. High price is holding company back from going to a second shift.
- No but there have been very tight times. The market would allow the company to grow to double shift across the whole company-but not enough wood available.
- Yes-but diversified enough to shift to other areas/products to fill the void-to avoid shutdowns
- Yes but only due to cash

- Yes, it is constant, the whole physical configuration of the plant would be expanded, the company would set up to deal with it if they had the wood. We went for a long period of time on 2 days a week

- Yes-on the birch side some slowdowns, lost a day here and there, missed some deadlines as a result, had to pay over time (OT) to make up lost ground. Have to pay more as the shorts were not available.

- No shutdown due to MDF shortfall so far, but have had to rearrange schedules which costs money. The problems are due to the need for one custom product only.

Question 23: How are the recent changes in Crown royalty rates likely to affect raw material supplies for you?

- We are paying the same price to gov't in royalties as it costs to cut the wood (poplar, SPF).

- It has been very difficult to get the market to accept the higher fees as passed through in product prices. For example, increased $0.40 per unit on products that the contracts are awarded on the basis of a few cents per unit

- The increases hit the bottom line-but still need to take all the Crown wood available as it is the only stable source of supply. His allocation was cut from 12,000 to 9,000 m3 (1992) because of not using the quota. Then it was cut back to 7,000 due to Fundy license shortage, and he is still at the same level.

- Price of wood went up-can't tell how much was due to stumpage rate increase and how much was due to other factors

- Price of SPF is low now, so its hard to tell how much affect the increase is having. This only affects NB wood which is a problem for competitiveness, given that adjacent jurisdictions (QUE) didn't raise rates.

- Makes the SPF wood more expensive which can't be passed along to the customer. The US countervail exemption gives us some ammo, but prices are getting up there.

- The increases are felt only on the round logs side. On lumber side, its the market that determines price.

- There is not much more room to move on royalty rates now.

- Look at the agreements for Crown vs Private Woodlots for stumpage. They are now within 5% of each other. The costs have now caught up because the Private wood grade is low. If the Crown wood was bought by grade then it wouldn't match.

- Supplies are unaffected, but price increase came at the worst possible time given the market nosedive for SPF.

- The increases can be accepted but there has to be an increase in hardwood silviculture. The value added companies need to be in control of the resource instead of the commodity guys- everything is backwards to what makes sense.

Question 36: General Comments and Anecdotes.

- This is a mining operation on Cedar because it is not being managed, none being planted, sooner or later there will be none left.

- Another said cedar on Crown land isn't sustainable due to lack of forest mgmt. for the species.

- No hardwood silviculture is being practiced today which threatens long term wood supply. Stand/species conversion of quality hardwood ridges to softwood is very problematic, has to stop.

- The biggest change in the last 8 years is the portable sawmill situation. There are probably 400 portable mills now which are severe competition when it comes to existing sawmills. These mills are tough to regulate, and not efficient when it comes to waste unless they are set in a "permanent" mill setting. These portable mills have served to tighten the market for Private Woodlot logs.

APPENDIX I

The Crown Allocations By License is not available in electronic format. It can be obtained from the Forest Management Branch of the New Brunswick Department of Natural Resources and Energy.

SCHEDULE A

The Royalty for the period commencing on April 1, 2000, and ending on March 31, 2001, to be paid on the following species of the following classes of timber based on the fair market value of the standing timber of that class is that amount prescribed by the following table:

Column 1 Class of Timber	Column 2 Species or Groups of Species of Timber in a Class	Column 3 Fair Market Value of Standing Timber by Class	Column 4 Royalty Payable on Species of a Class Expressed as a Percentage of Column 3
veneer logs	any softwood species	$22.48 per cubic metre	100% *
veneer logs	any hardwood species (including curly maple) other than poplar	$28.34 per cubic metre	100% *
veneer logs	poplar	$14.28 per cubic metre	100% *
sawlogs	any softwood species other than cedar, hemlock and larch	$19.30 per cubic metre	100% *
sawlogs	cedar	$10.60 per cubic metre	100% *
sawlogs	hemlock and larch	$9.56 per cubic metre	100% *
sawlogs	any hardwood species other than poplar	$19.38 per cubic metre	100% *
sawlogs	poplar	$11.51 per cubic metre	100% *
spoolwood	white birch	$28.34 per cubic metre	100% *
pallet logs	any hardwood species other than poplar	$8.62 per cubic metre	100% *
pallet logs	poplar	$6.45 per	100% *

		cubic metre	
studwood and lathwood	poplar	$11.51 per cubic metre	100% *
studwood and lathwood	any softwood species other than cedar, hemlock and larch	$19.30 per cubic metre	100% *
studwood and lathwood	cedar	$10.60 per cubic metre	100% *
studwood and lathwood	hemlock and larch	$8.31 per cubic metre	100% *
poles and pilings	any softwood species	$29.70 per cubic metre	100% *
fencing	cedar	$10.60 per cubic metre	100% *
posts, rails and shinglewood	cedar	$7.96 per cubic metre	100% *
pulpwood	any softwood species other than hemlock, larch and white pine	$12.44 per cubic metre	100% *
pulpwood	hemlock, larch and white pine	$7.90 per cubic metre	100% *
pulpwood	any hardwood species other than poplar	$8.62 per cubic metre	100% *
pulpwood	poplar	$6.45 per cubic metre	100% *
OSB fibre	any hardwood species	$5.62 per cubic metre	68%
fuelwood	any hardwood species	$8.62 per cubic metre	100% *
weir stakes	any softwood species	$25.28 per cubic metre	100%
weir stakes	any hardwood species	$25.80 per cubic metre	100%
top poles	any species	$0.89 per piece	100%
ribbons	any species	$1.00 per piece	100%
weir brush	any species	$0.05 per piece	

wreath tips, branch material and drug extractives	any softwood species	$20.00 per 13,000 kilograms	100%

• Reduced to 76% to offset the costs incurred by the forest industry in their management of Crown Lands.

APPENDIX J

TOTAL INDUSTRIAL ROUNDWOOD HARVESTED AND CONSUMED (m3) IN N.B. DURING 1998

Industry Type	Source	Spruce, Fir & Jack Pine	White & Red Pine	Larch & Hemlock	Cedar	Total Softwood	Total Hardwood	Total All Species
Pulpmills	Crown License	712133	1181	1470	0	714784	1063279	1778063
	Federal Freehold	7326	0	0	0	7326	8876	16202
	Own Freehold	105159	29	37	0	105225	192243	297468
	Industrial Freehold	73448	0	0	0	73448	349609	423057
	Marketing Board	479233	721	2436	0	482390	614471	1096861
	TOTAL	1377299	1931	3943	0	1383173	2228478	3611651
Sawmills & Others	Crown License	2845228	77312	6776	73327	3002643	259753	3262396
	Federal Freehold	69066	1923	567	914	72470	447	72917
	Own Freehold	1405157	14363	1603	786	1421909	92676	1514585
	Industrial Freehold	445102	20471	280	98267	564120	194203	758323
	Marketing Board	1041863	28734	12018	89960	1172575	71605	1244180
	TOTAL	5806416	142803	21244	263254	6233717	618684	6852401
Total All Mills	Crown License	3557361	78493	8246	73327	3717427	1323032	5040459
	Federal Freehold	76392	1923	567	914	79796	9323	89119
	Own Freehold	1510316	14392	1640	786	1527134	284919	1812053
	Industrial Freehold	518550	20471	280	98267	637568	543812	1181380
	Marketing Board	1521096	29455	14454	89960	1654965	686076	2341041
	TOTAL	7183715	144734	25187	263254	7616890	2847162	10464052

CROWN LICENSE ROUNDWOOD HARVESTED AND CONSUMED (m3) IN N.B. DURING 1998

Industry Type	Source	Spruce, Fir & Jack Pine	White & Red Pine	Larch & Hemlock	Cedar	Total Softwood	Total Hardwood	Total All Species
Pulpmills	Upsalquitch	0	0	0	0	0	68085	68085
	Nepisiguit	85402	282	351	0	86035	101455	187490
	Lower Miramichi	154929	397	494	0	155820	96435	252255
	Upper Miramichi	140023	470	585	0	141078	101088	242166
	Kent	19818	32	40	0	19890	26627	46517
	Queens-Charlotte	180661	0	0	0	180661	220636	401297
	Fundy	97963	0	0	0	97963	132282	230245
	York	1941	0	0	0	1941	151554	153495
	Carleton	0	0	0	0	0	89461	89461
	Restigouche-Tobique	31396	0	0	0	31396	75656	107052
	TOTAL	712133	1181	1470	0	714784	1063279	1778063
Sawmills	Upsalquitch	387591	943	0	9377	397911	101931	499842
	Nepisiguit	179562	959	8	3535	184064	4219	188283
	Lower Miramichi	210288	3446	1741	14353	229828	8747	238575
	Upper Miramichi	310199	1756	1178	2103	315236	6115	321351
	Kent	34361	1033	239	3698	39331	1010	40341
	Queens-Charlotte	447204	46468	1954	16806	512432	7551	519983
	Fundy	340723	13328	182	601	354834	2859	357693
	York	177421	3757	719	7507	189404	4611	194015
	Carleton	181268	5034	755	6694	193751	8671	202422
	Restigouche-Tobique	576611	588	0	8653	585852	114039	699891
	TOTAL	2845228	77312	6776	73327	3002643	259753	3262396
Total All Mills	Upsalquitch	387591	943	0	9377	397911	170016	567927
	Nepisiguit	264964	1241	359	3535	270099	105674	375773
	Lower Miramichi	365217	3843	2235	14353	385648	105182	490830
	Upper Miramichi	450222	2226	1763	2103	456314	107203	563517
	Kent	54179	1065	279	3698	59221	27637	86858
	Queens-Charlotte	627865	46468	1954	16806	693093	228187	921280
	Fundy	438686	13328	182	601	452797	135141	587938
	York	179362	3757	719	7507	191345	156165	347510
	Carleton	181268	5034	755	6694	193751	98132	291883
	Restigouche-Tobique	608007	588	0	8653	617248	189695	806943
	TOTAL	3557361	78493	8246	73327	3717427	1323032	5040459

OWN FREEHOLD, INDUSTRIAL FREEHOLD AND FEDERAL LANDS ROUNDWOOD HARVESTED AND CONSUMED (m3) IN N.B. DURING 1998

Industry Type	Source	Spruce, Fir & Jack Pine	White & Red Pine	Larch & Hemlock	Cedar	Total Softwood	Total Hardwood	Total All Species
Pulpmills	Own Freehold	105159	29	37	0	105225	192243	297468
	Industrial Freehold	73448	0	0	0	73448	349609	423057
	Federal Lands:							
	Tracadie Range	4105	0	0	0	4105	0	4105
	Base Gagetown	733	0	0	0	733	4757	5490
	Acadia Reserve	0	0	0	0	0	2609	2609
	Reservations	2488	0	0	0	2488	1510	3998
	TOTAL	185933	29	37	0	185999	550728	736727
Sawmills & Others	Own Freehold	1405157	14363	1603	786	1421909	92676	1514585
	Industrial Freehold	445102	20471	280	98267	564120	194203	758323
	Federal Lands:							
	Tracadie Range	0	0	0	0	0	0	0
	Base Gagetown	64105	1907	0	0	66012	0	66012
	Acadia Reserve	424	0	0	0	424	0	424
	Reservations	4537	16	567	914	6034	447	6481
	TOTAL	1919325	36757	2450	99967	2058499	287326	2345825
Total All Mills	Own Freehold	1510316	14392	1640	786	1527134	284919	1812053
	Industrial Freehold	518550	20471	280	98267	637568	543812	1181380
	Federal Lands:	0	0	0	0	0	0	0
	Tracadie Range	4105	0	0	0	4105	0	4105
	Base Gagetown	64838	1907	0	0	66745	4757	71502
	Acadia Reserve	424	0	0	0	424	2609	3033
	Reservations	7025	16	567	914	8522	1957	10479
	TOTAL	2105258	36786	2487	99967	2244498	838054	3082552

MARKETING BOARD ROUNDWOOD HARVESTED AND CONSUMED (m3) IN N.B. DURING 1998

Industry Type	Source	Spruce, Fir & Jack Pine	White & Red Pine	Larch & Hemlock	Cedar	Total Softwood	Total Hardwood	Total All Species
Pulpmills	Carleton-Victoria	21869	0	0	0	21869	105943	127812
	Madawaska	39048	0	0	0	39048	32366	71414
	North Shore	126181	246	830	0	127257	203419	330676
	Northumberland	92391	225	760	0	93376	45324	138700
	South-East N.B.	109858	157	531	0	110546	78782	189328
	Southern N.B.	67301	49	166	0	67516	30679	98195
	York-Sunbury-Charlotte	22585	44	149	0	22778	117958	140736
	TOTAL	479233	721	2436	0	482390	614471	1096861
Sawmills	Carleton-Victoria	63148	51	670	8945	72814	1807	74621
	Madawaska	92606	0	0	1437	94043	7706	101749
	North Shore	233353	840	2000	14555	250748	33103	283851
	Northumberland	79218	9207	203	16766	105394	16743	122137
	South-East N.B.	202895	7555	5744	5400	221594	4829	226423
	Southern N.B.	234370	9267	342	26011	269990	5552	275542
	York-Sunbury-Charlotte	136273	1814	3059	16846	157992	1865	159857
	TOTAL	1041863	28734	12018	89960	1172575	71605	1244180
Total All Mills	Carleton-Victoria	85017	51	670	8945	94683	107750	202433
	Madawaska	131654	0	0	1437	133091	40072	173163
	North Shore	359534	1086	2830	14555	378005	236522	614527
	Northumberland	171609	9432	963	16766	198770	62067	260837
	South-East N.B.	312753	7712	6275	5400	332140	83611	415751
	Southern N.B.	301671	9316	508	26011	337506	36231	373737
	York-Sunbury-Charlotte	158858	1858	3208	16846	180770	119823	300593
	TOTAL	1521096	29455	14454	89960	1654965	686076	2341041

IMPORT AND EXPORT OF FIBRE BY N.B. PULPMILLS DURING 1998

			IMPORTED FIBRE				EXPORTED FIBRE			
Mill Name	Product	Source/ Destination	Spruce, Fir & Jack Pine	White & Red Pine	Cedar	Hardwood	Spruce, Fir & Jack Pine	White & Red Pine	Cedar	Hardwood
Eagle Forest Products	Roundwood	NS	0	0	0	65524	0	0	0	0
		PEI	0	0	0	24838	0	0	0	0
Stone Container Canada, Inc.	Chips	Quebec	0	0	0	9770	0	0	0	0
FlakeBoard Corp.	Other	NS	4464	0	0	0	0	0	0	0
		Maine	14862	0	0	0	0	0	0	0
Fraser Paper Inc.	Roundwood	Quebec	2496	0	0	0	0	0	0	0
		NS	4033	0	0	0	0	0	0	0
		PEI	437	0	0	0	0	0	0	0
		Maine	1503	0	0	0	0	0	0	0
	Chips	Quebec	80712	0	0	0	0	0	0	0
		Maine	102377	0	0	0	0	0	0	0
Irving Pulp and Paper	Roundwood	NS	141859	0	0	0	0	0	0	0
		PEI	114	0	0	0	0	0	0	0
	Chips	Maine	7031	0	0	0	0	0	0	0
Repap-Kraft	Roundwood	NS	22059	0	0	0	0	0	0	0
		PEI	7470	0	0	0	0	0	0	0
	Chips	Quebec	125106	0	0	0	0	0	0	0
		NS	12929	0	0	0	0	0	0	0
		Other	3334	0	0	0	0	0	0	0
Repap-Groundwood	Roundwood	NS	41913	0	0	0	0	0	0	0
		PEI	49767	0	0	0	0	0	0	0
AV Cell	Chips	Quebec	379990	0	0	6150	0	0	0	0
Avenor Maritimes Inc.	Chips	Quebec	269719	0	0	0	0	0	0	0
Irving Paper Inc.	Chips	Maine	1964	0	0	0	0	0	0	0
Georgia Pacific (Pulpmill)	Roundwood	Maine	0	0	0	0	89320	0	0	339557
Georgia Pacific (Wafer)	Roundwood	Maine	0	0	0	0	16985	0	0	130324

IMPORT AND EXPORT OF FIBRE BY N.B. PULPMILLS DURING 1998

			IMPORTED FIBRE				EXPORTED FIBRE			
Mill Name	Product	Source/ Destination	Spruce, Fir & Jack Pine	White & Red Pine	Cedar	Hardwood	Spruce, Fir & Jack Pine	White & Red Pine	Cedar	Hardwood
Total All Pulpmills	Roundwood	Quebec	2496	0	0	0	0	0	0	0
		NS	209864	0	0	65524	0	0	0	0
		PEI	57788	0	0	24838	0	0	0	0
		Maine	1503	0	0	0	106305	0	0	469881
		Other	0	0	0	0	0	0	0	0
		TOTAL	271651	0	0	90362	106305	0	0	469881
	Chips	Quebec	855527	0	0	15920	0	0	0	0
		NS	12929	0	0	0	0	0	0	0
		PEI	0	0	0	0	0	0	0	0
		Maine	111372	0	0	0	0	0	0	0
		Other	3334	0	0	0	0	0	0	0
		TOTAL	983162	0	0	15920	0	0	0	0
	Other Residue	Quebec	0	0	0	0	0	0	0	0
		NS	4464	0	0	0	0	0	0	0
		PEI	0	0	0	0	0	0	0	0
		Maine	14862	0	0	0	0	0	0	0
		Other	0	0	0	0	0	0	0	0
				0	0	0	0	0	0	0
		TOTAL	19326	0	0	0	0	0	0	0

IMPORT AND EXPORT OF FIBRE BY N.B. SAWMILLS DURING 1998

			IMPORTED FIBRE				EXPORTED FIBRE			
Mill Name	Product	Source/ Destination	Spruce, Fir & Jack Pine	White & Red Pine	Cedar	Hardwood	Spruce, Fir & Jack Pine	White & Red Pine	Cedar	Hardwood
Total All Sawmills	Roundwood	Quebec	26269	2000	136	12297	6011	244	748	126096
		NS	376179	13666	0	6739	52576	0	0	0
		PEI	63606	2	0	3878	0	0	0	0
		Maine	218805	5130	77256	125221	0	1157	0	224298
		Other	0	3000	0	0	0	0	0	0
		TOTAL	684859	23798	77392	148135	58587	1401	748	350394
	Chips	Quebec	0	0	0	0	0	0	0	18229
		NS	0	0	0	0	0	0	0	0
		PEI	0	0	0	0	0	0	0	0
		Maine	0	0	0	0	35090	0	0	125717
		Other	0	0	0	0	0	0	0	0
		TOTAL	0	0	0	0	35090	0	0	143946
	Other Residue	Quebec	0	0	0	0	0	0	0	0
		NS	0	0	0	0	0	0	0	0
		PEI	0	0	0	0	0	0	0	0
		Maine	0	0	0	0	0	0	0	0
		Other	0	0	0	0	0	0	0	0
		TOTAL	0	0	0	0	0	0	0	0

IMPORT AND EXPORT OF FIBRE BY N.B.DURING 1998

			IMPORTED FIBRE				EXPORTED FIBRE			
Mill Name	Product	Source/ Destination	Spruce, Fir & Jack Pine	White & Red Pine	Cedar	Hardwood	Spruce, Fir & Jack Pine	White & Red Pine	Cedar	Hardwood
Total All Mills	Roundwood	Quebec	28765	2000	136	12297	6011	244	748	126096
		NS	586043	13666	0	72263	52576	0	0	0
		PEI	121394	2	0	28716	0	0	0	0
		Maine	220308	5130	77256	125221	106305	1157	0	694179
		Other	0	3000	0	0	0	0	0	0
		TOTAL	956510	23798	77392	238497	164892	1401	748	820275
	Chips	Quebec	855527	0	0	15920	0	0	0	18229
		NS	12929	0	0	0	0	0	0	0
		PEI	0	0	0	0	0	0	0	0
		Maine	111372	0	0	0	35090	0	0	125717
		Other	3334	0	0	0	0	0	0	0
		TOTAL	983162	0	0	15920	35090	0	0	143946
	Other Residue	Quebec	0	0	0	0	0	0	0	0
		NS	4464	0	0	0	0	0	0	0
		PEI	0	0	0	0	0	0	0	0
		Maine	14862	0	0	0	0	0	0	0
		Other	0	0	0	0	0	0	0	0
		TOTAL	19326	0	0	0	0	0	0	0

APPENDIX K

The 2000 Royalty Rate Schedule is not available in electronic format. It can be obtained from the Forest Management Branch of the New Brunswick Department of Natural Resources and Energy.

SCHEDULE F - 2000

License No. 1 / Permis N° 1 - Upsalquitch

Annual Allocation of Timber From Crown Lands (m3 / year)

Allocation en Bois Annuelle sur les Terres de la Couronne (m3 / année)

Licensee / Titulaire: Bowater Maritimes Inc.

Licensee & Sub-Licensees Titulaire & Titulaire de sous-permis	Spruce, Fir Jack Pine / * Épinette, Sapin,	Red & White Pine / Pin Rouge et	Cedar / Cèdre	Hardwood / Feuillus	Hemlock / Pruche	Total / Totale	Wood Chips To / (From) Copeaux de bois Ã / (De)
Adrien Arsenault Scierie Ltee	30,790	--	--	--	--	30,790	--
Atlantic Pressure Treating Limited	--	240 [a]	--	--	--	240	--
Av Cell Inc.	--	--	--	144,950	--	144,950	10,000
Bowater Maritimes Inc.	274,700	--	--	--	--	274,700	--
Deniso Lebel Inc.	23,015	--	--	--	--	23,015	--
Groupe Savoie Inc.	--	--	--	60,760 [b]	--	60,760	(25,000)
H.T.M. Industries Inc.	--	--	--	10,000 [c]	--	10,000	(10,000)
J.S. Murray & Sons Ltd	480	1,420	--	--	--	1,900	--
Kedgwick Lumber Co. Ltd.	--	--	1,600 [d]	--	--	1,600	--
Les Cedres Balmoral Ltee	--	--	5,040 [e]	--	--	5,040	--
Nelson Forest Products Inc.	2,850	--	--	1,450	--	4,300	--
North American Forest Product (Belanger)	27,940	470	--	--	--	28,410	--
North American Forest Products Ltd.	7,765	--	1,140	--	--	8,905	--
Smurfit-Stone Container Canada Inc.	--	--	--	34,405 [f]	--	34,405	25,000
Weyerhaeuser Company Limited	--	--	--	55,170	--	55,170	--
First Nations	19,760	120	420	10,000	--	30,300	--
Total / Totale	**387,300**	**2,250**	**8,200**	**316,735**	**0**	**714,485**	

*ALL TREELENGTH ALLOCATIONS LESS VENEER UNLESS OTHERWISE NOTED
*TOUTES LES ALLOCATIONS DE TRONCS ENTIERS SAUF QUE LE BOIS PLACAGE Ä MOINS D'INDICATION CONTRAIRE

a - Red pine poles. / Poteaux pin rouge.
b - Includes 10 650 m3 aspen, 39 530 m3 hardwood pulpwood, and 10 580 m3 hardwood logs. / Comprend 10 650 m3 de tremble, 39 530 m3 de bois à pâte de feuillus, et 10 580 m3 billes de feuillus.
c - Pulpwood quality. / Qualité de bois à pâte.
d - Treelength. / D'arbres entiers.
e - Includes 1 040 m3 sawlog quality and 4 000 m3 shingle quality. / Comprend 1 040 m3 qualité des billes, 4 000 m3 qualité bois à bardeaux.
f - Includes 24 405 m3 aspen. / Comprend 24 405 m3 de tremble.

SCHEDULE F - 2000
License No. 2 / Permis N° 2 - Nepisiguit
Annual Allocation of Timber From Crown Lands (m3 / year)
Allocation en Bois Annuelle sur les Terres de la Couronne (m3 / année)
Licensee / Titulaire: Smurfit-Stone Container Corp.

Licensee & Sub-Licensees Titulaire & Titulaire de sous-permis	Spruce, Fir Jack Pine / * Épinette, Sapin,	Red & White Pine / Pin Rouge et	Cedar / Cèdre	Hardwood / Feuillus	Hemlock / Pruche	Total / Totale	Wood Chips To / (From) Copeaux de bois À / (De)
Adrien Arsenault Scierie Ltee	4,690	55	--	--	--	4,745	--
Atlantic Pressure Treating Limited	--	20 [a]	--	--	--	20	--
Chaleur Sawmills Associates	66,005	420	830	960	--	68,215	--
Groupe Savoie Inc.	--	--	--	3,650	--	3,650	--
Herbert M. Knowles	11,025	310	120	--	--	11,455	--
Junction Lumber Products Inc.	--	--	950	--	--	950	--
Legacy, J. C.	250	--	--	--	--	250	--
Les Cedres Balmoral Ltee	--	--	2,370 [b]	--	--	2,370	--
Moulin McGraw Sawmills Ltd.	6,695	--	--	--	--	6,695	--
Moulin Poirier Ltee	--	--	--	680 [c]	--	680	--
Nelson Forest Products Inc.	2,180	--	--	1,930 [d]	--	4,110	--
North American Forest Product (Belanger)	14,990	290	--	--	--	15,280	--
Repap New Brunswick (G&S)	50,770 [e]	--	--	--	--	50,770	--
Smurfit-Stone Container Canada Inc.	121,030	--	--	85,305 [f]	--	206,335	--
First Nations	14,870	50	180	3,500	--	18,600	--
Total / Totale	**292,505**	**1,145**	**4,450**	**96,025**	**0**	**394,125**	

*ALL TREELENGTH ALLOCATIONS LESS VENEER UNLESS OTHERWISE NOTED
*TOUTES LES ALLOCATIONS DE TRONCS ENTIERS SAUF QUE LE BOIS PLACAGE Ä MOINS D'INDICATION CONTRAIRE

a - Red pine poles. / Poteaux pin rouge.
b - Includes 280 m3 sawlog quality and 2 090 m3 shingle quality. / Comprend 280 m3 qualité des billes. 2 090 m3 qualité bois à bardeaux.
c - Aspen. / Tremble.
d - Includes 1 400 m3 of aspen. / Comprend 1 400 m3 de tremble.
e - Includes 36 165 m3 pulpwood and 14 605 m3 treelength less veneer. / Comprend 36 165 m3 bois à pâte, 14 605 m3 d'arbres entiers moin billes de placage.
f - Hardwood includes 22 795 m3 of aspen. / Feuillus comprend 22 795 m3 de tremble.

SCHEDULE F - 2000

License No. 3 / Permis N° 3 - Lower Miramichi

Annual Allocation of Timber From Crown Lands (m3 / year)

Allocation en Bois Annuelle sur les Terres de la Couronne (m3 / année)

Licensee / Titulaire: Repap New Brunswick (G&S)

Licensee & Sub-Licensees Titulaire & Titulaire de sous-permis	Spruce, Fir Jack Pine / Épinette, Sapin,	Red & White Pine / Pin Rouge et	Cedar / Cèdre	Hardwood / Feuillus	Hemlock / Pruche	Total / Totale	Wood Chips To / (From) Copeaux de bois À / (De)
Ashley Colter (1961) Ltd. (F'ton)	14,015	--	--	--	--	14,015	--
Atlantic Pressure Treating Limited	--	220 [a]	--	--	--	220	--
Blackville Lumber Inc.	98,500	--	--	--	--	98,500	--
Bourque Firewood Ltd.	--	--	--	--	240	240	--
C & V Industries	--	--	910	--	--	910	--
Capital Forest Products Inc.	4,120	--	--	--	--	4,120	--
Clair Industrial Development Corp.Ltd.	--	--	530 [b]	--	--	530	--
Delco Forest Products Ltd.	5,260	--	--	--	--	5,260	--
Dickson's Sawmill	--	--	600	--	--	600	--
Doiron, Yvon	--	--	140 [c]	--	--	140	--
Entreprises Austin Ltee	--	--	--	970 [d]	--	970	--
Eric Goguen & Sons Ltd.	7,330	--	--	--	--	7,330	--
H. A. Fawcett & Sons Ltd.	6,650	--	--	--	--	6,650	--
Hamilton Forestry Products	--	--	--	--	1,090	1,090	--
James Sparkes & Sons Ltd.	--	--	--	--	1,110	1,110	--
Leger Firewood Ltd.	--	--	--	1,160 [d]	--	1,160	--
Nelson Forest Products Inc.	12,385	3,050	--	3,190 [e]	--	18,625	--
Newcastle Lumber Co.Ltd.	3,540	1,510	--	--	--	5,050	--
Ouellet Cedar Inc.	--	--	2,550 [c]	--	--	2,550	--
R. F. Sadler Ltd.	--	--	--	970	--	970	--
Repap New Brunswick (G&S)	110,005	--	--	--	--	110,005	--
Repap New Brunswick (K)	80,410	7,100 [f]	--	--	--	87,510	--
Rojac Cedar Product Inc.	--	--	245 [g]	--	--	245	--
Russell & Swim Limited c/o J.D. Irving	--	4,595	--	--	--	4,595	--
Seacoast Fishing Supply Ltd.	--	--	--	225	--	225	--
SWP Industries (Blackville)	--	--	2,410	--	--	2,410	--
Underhill Forest Products Ltd.	--	--	2,455	580	--	3,035	--
Veneer Products of NB (1981) Ltd.	--	--	--	450	--	450	--
Weyerhaeuser Company Limited	--	--	--	92,740	--	92,740	--
First Nations	17,880	860	540	3,300	120	22,700	--
Total / Totale	**360,095**	**17,335**	**10,380**	**103,585**	**2,560**	**493,955**	

a - Red pine poles. / Poteaux pin rouge.
b - Includes 490 m3 shingle quality and 40 m3 sawlog quality. / Comprend 490 m3 qualité bois à bardeaux, 40 m3 qualité des billes.
c - Shingle quality. / Qualité bois à bardeaux.
d - Fuelwood. / Bois de chauffage.
e - Includes 2 220 m3 aspen. / Comprend 2 220 m3 de tremble.
f - Pine is of pulpwood quality. / Pin de qualité convenant à la pâte.
g - Treelength. / D'arbres entiers.

SCHEDULE F - 2000
License No. 4 / Permis N° 4 - Upper Miramichi
Annual Allocation of Timber From Crown Lands (m3 / year)
Allocation en Bois Annuelle sur les Terres de la Couronne (m3 / année)
Licensee / Titulaire: Repap New Brunswick (K)

Licensee & Sub-Licensees Titulaire & Titulaire de sous-permis	Spruce, Fir Jack Pine / Épinette, Sapin,	Red & White Pine / Pin Rouge et	Cedar / Cèdre	Hardwood / Feuillus	Hemlock / Pruche	Total / Totale	Wood Chips To / (From) Copeaux de bois À / (De)
Ashley Colter (1961) Ltd. (F'ton)	4,925	--	--	--	--	4,925	--
Atlantic Pressure Treating Limited	--	40 [a]	--	--	--	40	--
Av Cell Inc.	71,160 [b]	--	--	--	--	71,160	--
Blackville Lumber Inc.	109,450	--	--	--	--	109,450	--
C & V Industries	--	--	360	--	--	360	--
Clair Industrial Development Corp.Ltd.	--	--	205 [c]	--	--	205	--
Delco Forest Products Ltd.	10,860	--	--	--	--	10,860	--
Doiron, Yvon	--	--	95 [d]	--	--	95	--
FraserPapers Nexfor (Carleton)	74,805 [e]	--	--	--	--	74,805	(50,000)
Hamilton Forestry Products	--	--	--	--	95	95	--
J. D. Irving, Limited	62,200 [b]	--	--	--	--	62,200	(35,000)
James Sparkes & Sons Ltd.	--	--	--	--	3,065	3,065	--
Nelson Forest Products Inc.	13,690	195	--	4,420 [f]	--	18,305	--
Newcastle Lumber Co.Ltd.	36,120 [g]	--	--	--	--	36,120	(20,000)
Ouellet Cedar Inc.	--	--	1,000 [d]	--	--	1,000	--
R. F. Sadler Ltd.	--	--	--	3,390	--	3,390	--
Repap New Brunswick (G&S)	47,440	--	--	--	--	47,440	40,000
Repap New Brunswick (K)	75,575	--	--	32,540	--	108,115	65,000
Rojac Cedar Product Inc.	--	--	1,185 [h]	--	--	1,185	--
Russell & Swim Limited c/o J.D. Irving	--	7,100	--	--	--	7,100	--
SWP Industries (Blackville)	--	--	1,630	--	--	1,630	--
Underhill Forest Products Ltd.	--	--	1,345	--	--	1,345	--
Veneer Products of NB (1981) Ltd.	--	--	--	1,130	--	1,130	--
Weyerhaeuser Company Limited	--	--	--	81,565	--	81,565	--
First Nations	27,340	390	305	4,000	165	32,200	--
Total / Totale	**533,565**	**7,725**	**6,125**	**127,045**	**3,325**	**677,785**	

a - Red pine poles. / Poteaux pin rouge.
b - Treelength less veneer. / D'arbres entier moin placage.
c - Includes 180 m3 shingle quality and 25 m3 sawlog quality. / Comprend 180 m3 qualité bois à bardeaux, 25 m3 qualité des billes.
d - Shingle quality. / Qualité bois à bardeaux.
e - Treelength less veneer. / D'arbres entiers moin placage.
f - Includes 1 030 m3 of aspen. / Comprend 1 030 m3 de tremble.
g - Includes 18 975 m3 treelength and 17 145 m3 sawlog material. / Comprend 18 975 m3 d'arbres entier, 17 145 m3 qualité des billes.
h - Treelength. / D'arbres entiers.

SCHEDULE F - 2000

License No. 5 / Permis N° 5 - Kent

Annual Allocation of Timber From Crown Lands (m3 / year)

Allocation en Bois Annuelle sur les Terres de la Couronne (m3 / année)

Licensee / Titulaire: Eagle Forest Products Ltd.

Licensee & Sub-Licensees Titulaire & Titulaire de sous-permis	Spruce, Fir Jack Pine / Épinette, Sapin,	Red & White Pine / Pin Rouge et	Cedar / Cèdre	Hardwood / Feuillus	Hemlock / Pruche	Total / Totale	Wood Chips To / (From) Copeaux de bois À / (De)
Atlantic Pressure Treating Limited	--	20 [a]	--	--	--	20	--
Capital Forest Products Inc.	990	--	--	--	--	990	--
Colonial Fence Manufacturing Co.	--	--	950	--	--	950	--
Delco Forest Products Ltd.	17,950	--	--	--	--	17,950	--
Gerald M. Price Ltd.	1,680	--	--	--	--	1,680	--
H. J. Crabbe & Sons Ltd.	2,840	1,230	--	--	--	4,070	--
J. D. Irving, Limited	9,480 [b]	--	--	--	--	9,480	--
Lakeburn Lumber Ltd.	2,330	--	--	--	--	2,330	--
Nelson Forest Products Inc.	460	--	--	925 [c]	--	1,385	--
Repap New Brunswick (G&S)	5,730	--	--	--	--	5,730	--
Repap New Brunswick (K)	10,530	--	--	--	--	10,530	--
Rojac Cedar Product Inc.	--	--	1,710 [d]	--	--	1,710	--
Russell & Swim Limited c/o J.D. Irving	--	850	--	--	--	850	--
St. Ignace Sawmill Ltd.	--	--	1,140	--	--	1,140	--
T. P. Downey & Sons Ltd. (St. Anthony)	3,980 [e]	--	--	--	--	3,980	--
Weyerhaeuser Company Limited	--	--	--	33,700	--	33,700	--
First Nations	3,080	120	200	1,100	--	4,500	--
Total / Totale	**59,050**	**2,220**	**4,000**	**35,725**	**0**	**100,995**	

a - Red pine poles. / Poteaux pin rouge.
b - Treelength less veneer. / D'arbres entier moin placage.
c - Includes 925 m3 of aspen. / Comprend 925 m3 de tremble.
d - Treelength. / D'arbres entiers.
e - 2 175 m3 of which is treelength less veneer. / Dont 2 175 m3 sont sous forme d'arbres entiers moin billes de placage.

SCHEDULE F - 2000

License No. 6 / Permis N° 6 - Queens-Charlotte

Annual Allocation of Timber From Crown Lands (m3 / year)

Allocation en Bois Annuelle sur les Terres de la Couronne (m3 / année)

Licensee / Titulaire: J. D. Irving, Limited

Licensee & Sub-Licensees Titulaire & Titulaire de sous-permis	Spruce, Fir Jack Pine / Épinette, Sapin,	Red & White Pine / Pin Rouge et	Cedar / Cèdre	Hardwood / Feuillus	Hemlock / Pruche	Total / Totale	Wood Chips To / (From) Copeaux de bois À / (De)
Ashley Colter (1961) Ltd. (F'ton)	4,180	--	--	--	--	4,180	--
Atlantic Pressure Treating Limited	--	1,610 [a]	--	--	--	1,610	--
Bishop's Lumber Co. Ltd.	4,960	--	--	--	--	4,960	--
C & V Industries	--	--	1,360	--	--	1,360	--
Chipman Sawmill Inc.	11,390	2,440	--	4,840	605	19,275	--
Clair Industrial Development Corp.Ltd.	--	--	705 [b]	--	--	705	--
Colonial Fence Manufacturing Co.	--	--	190	--	--	190	--
Dead River Ltd.(Sussex) c/o J.D.I.	16,020	960	--	--	--	16,980	--
Devon Lumber Co. Ltd.	26,015	--	--	--	--	26,015	--
Donald E. Beckett Ltd.	5,200	1,060	--	--	--	6,260	--
F. C. Alexander Limited	9,065	1,600	--	--	--	10,665	--
Flakeboard Co. Ltd	--	--	--	6,680 [c]	--	6,680	--
Frobisher Industries	--	--	--	2,000	--	2,000	--
H. J. Crabbe & Sons Ltd.	--	--	--	--	2,145	2,145	--
H.T.M. Industries Inc.	--	--	--	2,910	--	2,910	--
J. D. Irving, Limited	432,520	12,660	--	168,940	--	614,120	--
James Sparkes & Sons Ltd.	--	--	--	1,450	950	2,400	--
Lakeburn Lumber Ltd.	--	--	--	2,910 [d]	--	2,910	--
Levesque, R.	--	--	1,850	--	--	1,850	--
Miramichi Hardwoods Limited	--	--	--	4,840	--	4,840	--
Nelson Forest Products Inc.	4,210	--	--	6,200 [e]	--	10,410	--
Ouellet Cedar Inc.	--	--	3,630 [f]	--	--	3,630	--
R. F. Sadler Ltd.	--	--	--	2,620	--	2,620	--
Rojac Cedar Product Inc.	--	--	2,090 [g]	--	--	2,090	--
Russell & Swim Limited c/o J.D. Irving	34,300	37,080 [h]	--	--	--	71,380	--
Salmon River Lumber Co.	5,240	--	--	--	--	5,240	--
SWP Industries (Blackville)	--	--	50	--	--	50	--
SWP Industries (Goldsmith)	--	--	4,180	--	--	4,180	--
SWP Industries Inc.	--	--	4,890	--	--	4,890	--
T. P. Downey & Sons Ltd. (St. Anthony)	4,550	--	--	--	--	4,550	--
Veneer Products of NB (1981) Ltd.	--	--	--	2,950	--	2,950	--
Weyerhaeuser Company Limited	--	--	--	10,370	--	10,370	--
First Nations	29,250	1,850	1,000	6,900	200	39,200	--
Total / Totale	**586,900**	**59,260**	**19,945**	**223,610**	**3,900**	**893,615**	

a - Includes 950 m3 red pine poles and 660 m3 red pine treelength. / Comprend 950 m3 poteaux pin rouge, 660 m3 d'arbres entiers pin rouge.
b - Includes 680 m3 shingle quality and 25 m3 sawlog quality. / Comprend 680 m3 qualité bois à bardeaux, 25 m3 qualité des billes.
c - Full tree chips. / Copeaux d'arbres entiers.
d - Aspen. / Tremble.
e - Includes 3 290 m3 of aspen. / Comprend 3 290 m3 de tremble.
f - Shingle quality. / Qualité bois à bardeaux.
g - Treelength. / D'arbres entiers.
h - Includes 15 560 m3 residual harvest for next two years. / Comprend 15 560 m3 de bois récolté fortuitement au cours des deux prochaines années.

SCHEDULE F - 2000

License No. 7 / Permis N° 7 - Fundy

Annual Allocation of Timber From Crown Lands (m3 / year)

Allocation en Bois Annuelle sur les Terres de la Couronne (m3 / année)

Licensee / Titulaire: Irving Pulp & Paper Limited

Licensee & Sub-Licensees Titulaire & Titulaire de sous-permis	Spruce, Fir Jack Pine / Épinette, Sapin,	Red & White Pine / Pin Rouge et	Cedar / Cèdre	Hardwood / Feuillus	Hemlock / Pruche	Total / Totale	Wood Chips To / (From) Copeaux de bois À / (De)
Atlantic Pressure Treating Limited	--	140 [a]	--	--	--	140	--
Bishop's Lumber Co. Ltd.	4,515	--	--	--	--	4,515	--
Capital Forest Products Inc.	950	--	--	--	--	950	--
Chipman Sawmill Inc.	--	--	--	1,940	950	2,890	--
Dead River Ltd.(Sussex) c/o J.D.I.	7,080	2,070	--	--	--	9,150	--
Devon Lumber Co. Ltd. (F'ton)	19,730	--	--	--	--	19,730	--
Flakeboard Co. Ltd	--	--	--	32,050 [b]	--	32,050	--
Frobisher Industries	--	--	--	970	--	970	--
Gerald M. Price Ltd.	9,720	--	--	--	--	9,720	--
Goguen, Leo	--	--	--	1,160 [c]	--	1,160	--
H. A. Fawcett & Sons Ltd.	35,155	--	--	--	--	35,155	--
Irving Pulp & Paper Limited	187,425	2,285	--	90,640	--	280,350	--
James Sparkes & Sons Ltd.	--	--	--	--	555	555	--
Lakeburn Lumber Ltd.	8,395	190	--	2,900 [d]	--	11,485	--
Nelson Forest Products Inc.	2,550	--	--	4,760 [e]	--	7,310	--
Rojac Cedar Product Inc.	--	--	1,420 [f]	--	--	1,420	--
Russell & Swim Limited c/o J.D. Irving	--	11,425 [g]	--	--	--	11,425	--
Seacoast Fishing Supply Ltd.	--	--	--	240	--	240	--
SWP Industries (Goldsmith)	--	--	4,080	--	--	4,080	--
T. P. Downey & Sons Ltd.	42,450	--	--	--	--	42,450	--
T. P. Downey & Sons Ltd. (St. Anthony)	5,460	--	--	--	--	5,460	--
Veneer Products of NB (1981) Ltd.	--	--	--	970	--	970	--
Weyerhaeuser Company Limited	--	--	--	26,005	--	26,005	--
First Nations	17,370	580	300	5,300	50	23,600	--
Total / Totale	**340,800**	**16,690**	**5,800**	**166,935**	**1,555**	**531,780**	

a - Red pine poles. / Poteaux pin rouge.
b - Full tree chips. / Copeaux d'arbres entiers.
c - Fuelwood. / Bois de chauffage.
d - Aspen. / Tremble.
e - Includes 1 860 m3 of aspen. / Comprend 1 860 m3 de tremble.
f - Treelength. / D'arbres entiers.
g - Includes 4 440 m3 residual harvest for next two years. / Comprend 4 440 m3 de bois récolté fortuitement au cours des deux prochaines années.

SCHEDULE F - 2000

License No. 8 / Permis N° 8 - York

Annual Allocation of Timber From Crown Lands (m3 / year)

Allocation en Bois Annuelle sur les Terres de la Couronne (m3 / année)

Licensee / Titulaire: St. Anne-Nackawic Pulp Co. Ltd.

Licensee & Sub-Licensees Titulaire & Titulaire de sous-permis	Spruce, Fir Jack Pine / * Épinette, Sapin,	Red & White Pine / Pin Rouge et	Cedar / Cèdre	Hardwood / Feuillus	Hemlock / Pruche	Total / Totale	Wood Chips To / (From) Copeaux de bois À / (De)
Alliance-Couturier Inc.	14,230	--	--	--	--	14,230	--
Ashley Colter (1961) Ltd. (F'ton)	2,230	--	--	--	--	2,230	--
Atlantic Pressure Treating Limited	12,170	380 [a]	--	--	--	12,550	--
Av Cell Inc.	--	--	--	--	--		15,000 [b]
Brownlane Lumber Ltd.	2,010	190	--	--	--	2,200	--
Devon Lumber Co. Ltd. (F'ton)	15,530	--	5,050	--	--	20,580	--
Donald E. Beckett Ltd.	970	--	--	--	--	970	--
F. C. Alexander Limited	--	650	--	--	--	650	--
Flakeboard Co. Ltd	--	--	--	12,550	--	12,550	--
FraserPapers Nexfor (Carleton)	9,715	--	--	--	--	9,715	--
Garant,Div. of Hanson Kidde Canada Inc.	--	--	--	75 [c]	--	75	--
H. J. Crabbe & Sons Ltd.	12,115	--	--	--	1,040	13,155	--
J. D. Irving, Limited	2,020	--	--	--	--	2,020	--
James Sparkes & Sons Ltd.	--	--	--	4,050	2,850	6,900	--
Lindsay Lumber	--	--	660 [d]	--	--	660	--
Little's Lumber Ltd.	3,290	190	--	--	2,370	5,850	--
M. L. Wilkins & Son Ltd.	51,200	910	--	--	--	52,110	--
Nelson Forest Products Inc.	980	--	--	4,230 [e]	--	5,210	--
North American Forest Product (Belanger)	--	2,425	--	--	--	2,425	--
R. L. Latte Inc.	--	--	--	2,890 [f]	--	2,890	--
Speciality Maples	--	--	--	70 [g]	--	70	--
St. Anne-Nackawic Pulp Co. Ltd.	--	--	--	124,445	--	124,445	--
Veneer Products of NB (1981) Ltd.	--	--	--	1,930	--	1,930	--
First Nations	6,790	260	310	5,400	340	13,100	--
Total / Totale	**133,250**	**5,005**	**6,020**	**155,640**	**6,600**	**306,515**	

*ALL TREELENGTH ALLOCATIONS LESS VENEER UNLESS OTHERWISE NOTED
*TOUTES LES ALLOCATIONS DE TRONCS ENTIERS SAUF QUE LE BOIS PLACAGE Ä MOINS D'INDICATION CONTRAIRE

a - Red pine poles. / Poteaux de pin rouge.
b - Softwood pulpwood and/or chips from Sub-licensees. / Bois à pâte ou copeaux de résineux des titulaires de sous-permis.
c - Ash. / Frêne.
d - Treelength. / D'arbres entiers.
e - Includes 2 780 m3 of aspen. / Comprend 2 780 m3 de tremble.
f - Aspen. / Tremble.
g - Includes 50 m3 curly maple sawlogs and 20 m3 bird's eye maple sawlogs. /Comprend 50 m3 billes d'érable madré, 20 m3 billes de mouchete.

SCHEDULE F - 2000

License No. 9 / Permis N° 9 - Carleton

Annual Allocation of Timber From Crown Lands (m3 / year)

Allocation en Bois Annuelle sur les Terres de la Couronne (m3 / année)

Licensee / Titulaire: Juniper Lumber Company Ltd.

Licensee & Sub-Licensees Titulaire & Titulaire de sous-permis	Spruce, Fir Jack Pine / * Épinette, Sapin,	Red & White Pine / Pin Rouge et	Cedar / Cèdre	Hardwood / Feuillus	Hemlock / Pruche	Total / Totale	Wood Chips To / (From) Copeaux de bois À / (De)
Aberdeen Produce Co. Ltd.	--	--	--	1,500[a]	--	1,500	--
Atlantic Pressure Treating Limited	--	40[b]	--	--	--	40	--
Flakeboard Co. Ltd	--	--	--	11,620	--	11,620	--
FraserPapers Nexfor (Carleton)	125,260	--	--	--	--	125,260	--
Garant,Div. of Hanson Kidde Canada Inc.	--	--	--	40[c]	--	40	--
H. J. Crabbe & Sons Ltd.	26,155	950	--	--	1,075	28,180	--
James Sparkes & Sons Ltd.	--	--	--	2,420	--	2,420	--
John W. Jamer Ltd.	1,140[d]	320	--	--	--	1,460	--
Lindsay Lumber	--	--	480[e]	--	--	480	--
Nelson Forest Products Inc.	1,200	--	--	870[f]	--	2,070	--
North American Forest Product (Belanger)	--	1,200	--	--	--	1,200	--
North American Forest Products Ltd.	--	--	800	--	--	800	--
R. F. Sadler Ltd.	--	--	--	2,230	--	2,230	--
St. Anne-Nackawic Pulp Co. Ltd.	--	--	--	71,140	--	71,140	--
SWP Industries Inc.	--	--	2,210	--	--	2,210	--
Veneer Products of NB (1981) Ltd.	--	--	--	1,450	--	1,450	--
William F. Tompkins & Sons Ltd.	--	--	--	1,170	--	1,170	--
First Nations	8,320	140	180	3,000	60	11,700	--
Total / Totale	**162,075**	**2,650**	**3,670**	**95,440**	**1,135**	**264,970**	

*ALL TREELENGTH ALLOCATIONS LESS VENEER UNLESS OTHERWISE NOTED
*TOUTES LES ALLOCATIONS DE TRONCS ENTIERS SAUF QUE LE BOIS PLACAGE Ã MOINS D'INDICATION CONTRAIRE

a - Fuelwood. / Bois de chauffage.
b - Red pine poles. / Poteaux pin rouge.
c - Ash. / Frêne.
d - Includes 950 m3 treelength less veneer and 190 m3 larch sawlogs. / Comprend 950 m3 d'arbres entier moin placage, 190 m3 billes de sciage de mélize.
e - Treelength. / D'arbres entiers.
f - Includes 870 m3 aspen. / Comprend 870 m3 de tremble.

SCHEDULE F - 2000
License No. 10 / Permis N° 10 - Restigouche-Tobique
Annual Allocation of Timber From Crown Lands (m3 / year)
Allocation en Bois Annuelle sur les Terres de la Couronne (m3 / année)
Licensee / Titulaire: FraserPapers Nexfor

Licensee & Sub-Licensees Titulaire & Titulaire de sous-permis	Sprace, Fir Jack Pine / Épinette, Sapin,	Red & White Pine / Pin Rouge et	Cedar / Cèdre	Hardwood / Feuillus	Hemlock / Pruche	Total / Totale	Wood Chips To / (From) Copeaux de bois À / (De)
Alliance-Couturier Inc.	168,420[a]	--	--	--	--	168,420	(105,000)
Ateliers Arpin Ltee	--	--	--	775	--	775	--
Atlantic Pressure Treating Limited	--	20[b]	--	--	--	20	--
Av Cell Inc.	--	--	--	124,350	--	124,350	10,000
Begin Lumber Ltee	--	--	--	10,305	--	10,305	--
Clair Industrial Development Corp.Ltd.	--	--	700	--	--	700	--
Deniso Lebel Inc.	196,530[c]	--	--	--	--	196,530	--
Flakeboard Co. Ltd	--	--	--	4,800	--	4,800	--
FraserPapers Nexfor	95,780[c]	--	--	--	--	95,780	105,000
FraserPapers Nexfor (Carleton)	19,620[c]	--	--	--	--	19,620	--
Groupe Savoie Inc.	--	--	--	54,740[d]	--	54,740	--
H. J. Crabbe & Sons Ltd.	3,140	80	--	--	--	3,220	--
H.T.M. Industries Inc.	--	--	--	10,000[e]	--	10,000	(10,000)
John W. Jamer Ltd.	3,280	40	--	--	--	3,320	--
Kedgwick Lumber Co. Ltd.	--	--	7,110[f]	--	--	7,110	--
Lattes Waska Laths Inc.	--	--	--	2,880[g,h]	--	2,880	--
Nelson Forest Products Inc.	4,550	--	--	960	--	5,510	--
North American Forest Product (Belanger)	--	1,155[f]	--	--	--	1,155	--
North American Forest Products Ltd.	76,590[c]	--	3,970	--	--	80,560	--
Onil Thibeault & Fils	1,185	--	700	290	--	2,175	--
Plancher Heritage Flooring Ltd.	--	--	--	6,000[i]	--	6,000	--
R. F. Sadler Ltd.	--	330	--	5,280	--	5,610	--
Walker Lumber	--	--	--	960[g]	--	960	--
First Nations	30,780	80	740	8,000	--	39,600	--
Total / Totale	**599,875**	**1,705**	**13,220**	**229,340**	**0**	**844,140**	

a - Treelength less veneer. / D'arbres entiers moin placage.
b - Red pine poles. / Poteaux pin rouge.
c - All treelength allocations. / Toutes les allocations d'arbres entiers.
d - Includes 5 760 m3 aspen, and 39 390 m3 hardwood pulpwood, plus 9 590 m3 hardwood logs. / Comprend 5 760 m3 de tremble, 39 390 m3 de bois à pâte de feuillus, plus 9 590 m3 billes de feuillus.
e - Pulpwood quality. / Qualité de bois à pâte.
f - Treelength. / D'arbres entiers.
g - Aspen. / Tremble.
h - Temporary allocation of poplar lathwood/studwood for the 2000 operating year.
i - Treelength material for 2 years to expire March 31, 2002. / Arbres entiers pour la période de deux ans prenant fin le 31 mars 2002.

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